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NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1600783

Naval Air Station Oceana
Virginia Beach, Virginia

July 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

July 01, 2016

Vista Work Order No. 1600783

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on June 18, 2016. This sample set was analyzed on a rush turn-around time, under your Project Name 'Fentress Phase II PFC Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1600783
Case Narrative

Sample Condition on Receipt:

Nine aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The report was amended to correct the project name to "Fentress Phase II PFC Investigation"

Analytical Notes:

Modified EPA Method 537

The samples were extracted and analyzed for a selected list of six PFAS using Modified EPA Method 537. The results for PFBS, PFHxS and PFOS include both linear and branched isomers. Results for PFHpA, PFOA and PFNA results include the linear isomer only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The recoveries of all internal standards in the QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1600783-01	OFPOL-MW-7-0616	17-Jun-16 10:35	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-02	OFPOL-MW-4-0616	17-Jun-16 11:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-03	OFPOL-MW-8-0616	17-Jun-16 12:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-04	OFPOL-MW-6-0616	17-Jun-16 10:55	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-05	OFPOL-MW-3-0616	17-Jun-16 12:05	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-06	OFPOL-MW-3P-0616	17-Jun-16 12:10	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-07	OFPOL-MW-2-0616	17-Jun-16 13:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-08	OF-MW13-0616	17-Jun-16 14:10	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-09	OF-MW11-0616	17-Jun-16 14:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank — Modified EPA Method 537

Matrix:	Aqueous	QC Batch:	B6F0136	Lab Sample:	B6F0136-BLK1
Sample Size:	0.125 L	Date Extracted:	24-Jun-2016 7:39	Date Analyzed:	25-Jun-16 03:59 Column: BEH C18 Analyst: BSR

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	ND	1.79	4.00	8.00	
PFHpA	ND	0.591	4.00	8.00	
PFHxS	ND	0.947	4.00	8.00	
PFOA	ND	0.651	4.00	8.00	
PFOS	ND	0.807	4.00	8.00	
PFNA	ND	0.810	4.00	8.00	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	73.4	60 - 150	
IS	13C4-PFHpA	73.7	25 - 175	
IS	18O2-PFHxS	91.5	60 - 150	
IS	13C2-PFOA	72.3	60 - 150	
IS	13C8-PFOS	88.0	60 - 150	
IS	13C5-PFNA	73.7	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OPR

Modified EPA Method 537

Matrix:	Aqueous	QC Batch:	B6F0136	Lab Sample:	B6F0136-BS1
Sample Size:	0.125 L	Date Extracted:	24-Jun-2016 7:39	Date Analyzed:	25-Jun-16 03:21 Column: BEH C18 Analyst: BSR

Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits
PFBS	84.9	80.0	106	60 - 130
PFHpA	89.2	80.0	111	70 - 130
PFHxS	79.9	80.0	99.8	70 - 130
PFOA	80.3	80.0	100	70 - 130
PFOS	69.1	80.0	86.4	70 - 130
PFNA	77.8	80.0	97.2	50 - 130

	Labeled Standard	%R	LCL-UCL
IS	13C3-PFBS	78.3	60 - 150
IS	13C4-PFHpA	74.1	25 - 175
IS	18O2-PFHxS	86.6	60 - 150
IS	13C2-PFOA	82.0	60 - 150
IS	13C8-PFOS	85.0	60 - 150
IS	13C5-PFNA	79.5	50 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: OFPOL-MW-7-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 10:35
Location:	POL clear well / faint petroleum odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.127 L

Laboratory Data

Lab Sample:	1600783-01	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 04:25 Column: BEH C18 Analyst: BSR		
	30-Jun-16 02:56 Column: BEH C18 Analyst: BSR		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	840	1.76	3.94	7.87	
PFHpA	2990	11.6	78.7	157	D
PFHxS	9840	18.6	78.7	157	D
PFOA	3600	12.8	78.7	157	D
PFOS	49300	19.8	98.4	197	D
PFNA	763	0.797	3.94	7.87	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	136	60 - 150	
IS	13C4-PFHpA	75.7	25 - 175	D
IS	18O2-PFHxS	86.6	60 - 150	D
IS	13C2-PFOA	71.4	60 - 150	D
IS	13C8-PFOS	67.3	60 - 150	D
IS	13C5-PFNA	71.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-4-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 11:45
Location:	clear /petroleum odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.124 L

Laboratory Data

Lab Sample:	1600783-02	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 04:38 Column: BEH C18 Analyst: BSR		
	29-Jun-16 02:56 Column: BEH C18 Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	321	1.80	4.03	8.05	
PFHpA	203	0.595	4.03	8.05	
PFHxS	5090	19.1	80.6	161	D
PFOA	1600	0.655	4.03	8.05	
PFOS	31000	16.2	80.6	161	D
PFNA	88.2	0.815	4.03	8.05	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	94.5	60 - 150	
IS	13C4-PFHpA	76.4	25 - 175	
IS	18O2-PFHxS	76.4	60 - 150	D
IS	13C2-PFOA	77.9	60 - 150	
IS	13C8-PFOS	68.5	60 - 150	D
IS	13C5-PFNA	68.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-8-0616

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007H3-03	Date Received:	1H-Jun-2016 H55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.123 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 12:45			Date Analyzed:	25-Jun-16 04:50 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / Qaint petr8leum 8d8r				29-Jun-16 03:44 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	171	1.H2	4.07	H15	
PFo pA	953	0.602	4.07	H15	
PFo xS	2470	9.65	40.7	H1.5	D
PFUA	12H0	0.663	4.07	H15	
PFUS	9020	H22	40.7	H1.5	D
PFNA	270	0.H25	4.07	H15	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	104	60 - 150	
IS	13C4-PFo pA	71.4	25 - 175	
IS	1HU2-PFo xS	76.6	60 - 150	D
IS	13C2-PFUA	H1.0	60 - 150	
IS	13CH-PFUS	72.0	60 - 150	D
IS	13C5-PFNA	70.6	50 - 150	

LCL-wCL - L8Ter c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
f he results G8r PFBS, PFo xS, PFUA and PFUS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-6-0616

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007H3-04	Date Received:	1H-Jun-2016 H:55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.126 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 10:55			Date Analyzed:	25-Jun-16 05:03 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 03:57 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	215	1.77	3.97	7.92	
PFo pA	450	0.5H5	3.97	7.92	
PFo xS	3540	9.3H	39.7	79.2	D
PFOA	1460	0.645	3.97	7.92	
PFOS	14H00	7.99	39.7	79.2	D
PFNA	317	0.H02	3.97	7.92	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	91.6	60 - 150	
IS	13C4-PFo pA	73.6	25 - 175	
IS	1H02-PFo xS	H7.1	60 - 150	D
IS	13C2-PFOA	H2.9	60 - 150	
IS	13CH-PFOS	H2.4	60 - 150	D
IS	13C5-PFNA	70.1	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-3-0616

Modified EPA Method 537

Client Data

Name: Co 2M o ill
Pr8ject: Fentress Phase II PFC Investigati8n
Date C8llected: 17-Jun-2016 12:05
L8cati8n: Clear / n8 8d8r

Sample Data

Matrix: Aque8us
Sample Size: 0.125 L

Laboratory Data

Lab Sample: 16007HB-05 Date Received: 1H-Jun-2016 H55
QC Batch: B6F0136 Date Extracted: 24-Jun-2016 7:39
Date Analyzed: 25-Jun-16 05:15 C8lumn: BEo C1H Analyst: BSR
29-Jun-16 04:09 C8lumn: BEo C1H Analyst: PBW

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	335	1.HD	4.00	H03	
PFo pA	267	0.593	4.00	H03	
PFo xS	H700	9.50	40.0	HD.3	D
PFOA	5570	6.53	40.0	HD.3	D
PFOS	17200	H10	40.0	HD.3	D
PFNA	53.0	0.HI3	4.00	H03	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	115	60 - 150	
IS	13C4-PFo pA	HD.5	25 - 175	
IS	1HD2-PFo xS	HI.4	60 - 150	D
IS	13C2-PFOA	HB.4	60 - 150	D
IS	13CH-PFOS	74.7	60 - 150	D
IS	13C5-PFNA	72.9	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-3P-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 12:10
Location:	Clear / no odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.113 L

Laboratory Data

Lab Sample:	1600783-06	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 05:28 Column: BEH C18 Analyst: BSR		
	29-Jun-16 04:21 Column: BEH C18 Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	397	1.99	4.42	8.88	
PFHpA	260	0.656	4.42	8.88	
PFHxS	8380	10.5	44.2	88.8	D
PFOA	5620	7.22	44.2	88.8	D
PFOS	18600	8.95	44.2	88.8	D
PFNA	52.7	0.899	4.42	8.88	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	104	60 - 150	
IS	13C4-PFHpA	86.6	25 - 175	
IS	18O2-PFHxS	78.4	60 - 150	D
IS	13C2-PFOA	81.8	60 - 150	D
IS	13C8-PFOS	83.7	60 - 150	D
IS	13C5-PFNA	78.7	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to MDL.

The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-2-0616

Modified EPA Method 537

Client Data

Name: Co 2M o ill
Pr8ject: Fentress Phase II PFC Investigati8n
Date C8llected: 17-Jun-2016 13:45
L8cati8n: Clear / n8 8d8r

Sample Data

Matrix: Aque8us
Sample Size: 0.121 L

Laboratory Data

Lab Sample: 16007HB-07 Date Received: 1H-Jun-2016 H55
QC Batch: B6F0136 Date Extracted: 24-Jun-2016 7:39
Date Analyzed: 25-Jun-16 05:41 C8lumn: BEo C1H Analyst: BSR
29-Jun-16 04:33 C8lumn: BEo C1H Analyst: PBW

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	202	1.H5	4.13	H25	
PFo pA	1H4	0.610	4.13	H25	
PFo xS	3300	9.77	41.3	H2.5	D
PFOA	1150	0.672	4.13	H25	
PFOS	12700	H33	41.3	H2.5	D
PFNA	63.5	0.HB6	4.13	H25	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	H1.7	60 - 150	
IS	13C4-PFo pA	72.6	25 - 175	
IS	1HO2-PFo xS	74.4	60 - 150	D
IS	13C2-PFOA	H1.4	60 - 150	
IS	13CH-PFOS	6H2	60 - 150	D
IS	13C5-PFNA	6H9	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OF-MW63-0161

Modified EPA Method 537

Client Data

Name: Co 2M o ill
Pr8ject: Fentress Phase II PFC Investigati8n
Date C8llected: 17-Jun-2016 14:10
L8cati8n: Clear / n8 8d8r

Sample Data

Matrix: Aque8us
Sample Size: 0.121 L

Laboratory Data

Lab Sample: 16007HB-0H
QC Batch: B6F0136
Date Analyzed: 25-Jun-16 05:54 C8lumn: BEo C1H Analyst: BSR
29-Jun-16 04:45 C8lumn: BEo C1H Analyst: PBW
Date Received: 1H-Jun-2016 H55
Date Extracted: 24-Jun-2016 7:39

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	77.0	1.H5	4.13	H2H	
PFo pA	36.H	0.612	4.13	H2H	
PFo xS	2090	4.90	20.7	41.4	D
PFOA	657	0.674	4.13	H2H	
PFOS	4090	4.1H	20.7	41.4	D
PFNA	4.H5	0.HB9	4.13	H2H	J

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	HB.4	60 - 150	
IS	13C4-PFo pA	77.2	25 - 175	
IS	1HO2-PFo xS	H6.0	60 - 150	D
IS	13C2-PFOA	HB.6	60 - 150	
IS	13CH-PFOS	73.9	60 - 150	D
IS	13C5-PFNA	HH.6	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OF-MW66-0161

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007HB-09	Date Received:	1H-Jun-2016 H:55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.127 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 14:45			Date Analyzed:	25-Jun-16 06:06 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 04:5H C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	1420	1.77	3.94	7.90	
PFo pA	403	0.5H4	3.94	7.90	
PFo xS	7H60	4.6H	19.7	39.5	D
PFOA	41H	0.643	3.94	7.90	
PFOS	5320	3.99	19.7	39.5	D
PFNA	20.5	0.HD0	3.94	7.90	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	H5.3	60 - 150	
IS	13C4-PFo pA	H4.3	25 - 175	
IS	1HD2-PFo xS	H2.5	60 - 150	D
IS	13C2-PFOA	H3.9	60 - 150	
IS	13CH-PFOS	7H2	60 - 150	D
IS	13C5-PFNA	79.4	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The associated compound concentration exceeded the calibration range of the instrument.**
H	**Recovery and/or RPD was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Lower Calibration Limit of the instrument.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN OF CUSTODY

Vista

CTO-WE01

FOR LABORATORY USE ONLY

Laboratory Project ID: 1600783

Storage ID: WR-2

Storage Secured: Yes ☑ No ☐

Temp: -0.9 °C

TAT: (Check One):
Standard: ○ 21 Days
Rush (surcharge may apply):
● 14 days ○ 7 days Specify:

Project I.D.: Fentress Phase II PFC Investigation P.O.# CTO-WE01 Sampler: Andrew Winebrenner, Mark Ost (Name)

Invoice to: Name Tiffany Hill Company CH2M HILL Address 5701 Cleveland St, Suite 200 City Virginia Beach State VA Zip 23462 Ph# 541-768-3109 Fax#

Relinquished by: (Signature and Printed Name) Andrew Winebrenner Date: Time: Received by: (Signature and Printed Name) Date: 6/18/16 Time: 08:55

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

ATTN:

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCB's	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1614 PAH	CARB429 WHO-29	537 Mod (PFCs)
OFPOL-MW-7-0616	6/17/16	1035	POL well / Clear, faint petroleum Aqueous odor	2	P	AQ																X
OFPOL-MW-4-0616	6/17/16	1145	Clear / petroleum odor	2	P	AQ																X
OFPOL-MW-8-0616	6/17/16	1245	Clear / faint petroleum odor	2	P	AQ																X
OFPOL-MW-6-0616	6/17/16	1055	Clear / No odor	2	P	AQ																X
OFPOL-MW-3-0616	6/17/16	1205	Clear / No odor	2	P	AQ																X
OFPOL-MW-3P-0616	6/17/16	1210	Clear / No odor	2	P	AQ																X
OFPOL-MW-2-0616	6/17/16	1345	Clear / No odor	2	P	AQ																X
OF-MW13-0616	6/17/16	1410	Clear / No odor	2	P	AQ																X
OF-MW11-0616	6/17/16	1445	Clear / No odor	2	P	AQ																X

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M HILL
Address: 5701 Cleveland St, Suite 200
City: Virginia Beach State: VA Zip: 23462
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other 125 mL HDPE

*Bottle Preservative Type: T = Thiosulfate,
O = Other None

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum (AQ) = Aqueous, O = Other

WHITE - ORIGINAL YELLOW - ARCHIVE PINK - COPY

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1600783 **TAT** 14

Samples Arrival:	**Date/Time** 06/18/16 08:55	**Initials:**	**Location:** WA-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 06/20/16 0951	**Initials:** RSB	**Location:** WR-2 **Shelf/Rack:** F5

Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C: 0.4 (uncorrected) **Temp °C:** -0.9°C (corrected)	**Time:** 09:02		**Thermometer ID:** IR-2			

	YES	NO	NA
Adequate Sample Volume Received? A3B	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	—		
Shipping Custody Seals Intact?	—		
Shipping Documentation Present?	—		
Airbill Trk # 783380972288	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	(None)	
Shipping Container	(Vista)	Client	Retain	Return	Dispose

Comments:

Sample Label ID	Date	time	COC sample ID	Date	time
OFPOL-MW-2-0616	5/17/16	1325	OFPOL-MW-2-0616	6/17/16	1345

6/20/16 gp

Sample Login 11/2013 ckt

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Client: CH2M Hill
Contact: Tiffany Hill
Email: tiffany.hill@ch2m.com
Phone: (541) 768-3109

Workorder Number: 1600783
Date Received: 18-Jun-16 09:51
Documented by/date: B.Benedict 06/20/2016

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
mmaier@vista-analytical.com
916-673-1520

The following information or item is needed to proceed with analysis:

☐ Complete Chain-of-Custody	☐ Preservative	☐ Collector's Name
☐ Test Method Requested	☐ Sample Identification	☐ Sample Type
☐ Analyte List Requested	☒ Sample Collection Date and/or Time	☐ Sample Location
☐ Other:		

The following anomalies were noted. Authorization is needed to proceed with analysis.

☐ Temperature outside < 6°C Range Samples Affected: _____

Temperature _____°C Ice Present? Yes No Melted

☐ Sample ID Discrepancy	☐ Insufficient Sample Size
☐ Sample Holding Time Missed	☐ Sample Container(s) Broken
☐ Custody Seals Broken	☐ Incorrect Container Type

Comments:

Sample Label ID	Date	Time	COC Sample ID	Date	Time
OFPOL-MW-2-0616	5/17/16	1325	OFPOL-MW-2-0616	6/17/16	1345

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date 7/11/16

Client Comments/Instructions EMAILed to use COC time

July 01, 2016

Vista Work Order No. 1600783

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on June 18, 2016. This sample set was analyzed on a rush turn-around time, under your Project Name 'Fentress Phase II PFC Investigation'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1600783
Case Narrative

Sample Condition on Receipt:

Nine aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The report was amended to correct the project name to "Fentress Phase II PFC Investigation"

Analytical Notes:

Modified EPA Method 537

The samples were extracted and analyzed for a selected list of six PFAS using Modified EPA Method 537. The results for PFBS, PFHxS and PFOS include both linear and branched isomers. Results for PFHpA, PFOA and PFNA results include the linear isomer only.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The recoveries of all internal standards in the QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1600783-01	OFPOL-MW-7-0616	17-Jun-16 10:35	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-02	OFPOL-MW-4-0616	17-Jun-16 11:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-03	OFPOL-MW-8-0616	17-Jun-16 12:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-04	OFPOL-MW-6-0616	17-Jun-16 10:55	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-05	OFPOL-MW-3-0616	17-Jun-16 12:05	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-06	OFPOL-MW-3P-0616	17-Jun-16 12:10	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-07	OFPOL-MW-2-0616	17-Jun-16 13:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-08	OF-MW13-0616	17-Jun-16 14:10	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1600783-09	OF-MW11-0616	17-Jun-16 14:45	18-Jun-16 08:55	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank — Modified EPA Method 537

Matrix:	Aqueous	QC Batch:	B6F0136	Lab Sample:	B6F0136-BLK1
Sample Size:	0.125 L	Date Extracted:	24-Jun-2016 7:39	Date Analyzed:	25-Jun-16 03:59 Column: BEH C18 Analyst: BSR

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	ND	1.79	4.00	8.00	
PFHpA	ND	0.591	4.00	8.00	
PFHxS	ND	0.947	4.00	8.00	
PFOA	ND	0.651	4.00	8.00	
PFOS	ND	0.807	4.00	8.00	
PFNA	ND	0.810	4.00	8.00	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	73.4	60 - 150	
IS	13C4-PFHpA	73.7	25 - 175	
IS	18O2-PFHxS	91.5	60 - 150	
IS	13C2-PFOA	72.3	60 - 150	
IS	13C8-PFOS	88.0	60 - 150	
IS	13C5-PFNA	73.7	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OPR

Modified EPA Method 537

Matrix:	Aqueous	QC Batch:	B6F0136	Lab Sample:	B6F0136-BS1
Sample Size:	0.125 L	Date Extracted:	24-Jun-2016 7:39	Date Analyzed:	25-Jun-16 03:21 Column: BEH C18 Analyst: BSR

Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits
PFBS	84.9	80.0	106	60 - 130
PFHpA	89.2	80.0	111	70 - 130
PFHxS	79.9	80.0	99.8	70 - 130
PFOA	80.3	80.0	100	70 - 130
PFOS	69.1	80.0	86.4	70 - 130
PFNA	77.8	80.0	97.2	50 - 130

	Labeled Standard	%R	LCL-UCL
IS	13C3-PFBS	78.3	60 - 150
IS	13C4-PFHpA	74.1	25 - 175
IS	18O2-PFHxS	86.6	60 - 150
IS	13C2-PFOA	82.0	60 - 150
IS	13C8-PFOS	85.0	60 - 150
IS	13C5-PFNA	79.5	50 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: OFPOL-MW-7-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 10:35
Location:	POL clear well / faint petroleum odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.127 L

Laboratory Data

Lab Sample:	1600783-01	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 04:25 Column: BEH C18 Analyst: BSR		
	30-Jun-16 02:56 Column: BEH C18 Analyst: BSR		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	840	1.76	3.94	7.87	
PFHpA	2990	11.6	78.7	157	D
PFHxS	9840	18.6	78.7	157	D
PFOA	3600	12.8	78.7	157	D
PFOS	49300	19.8	98.4	197	D
PFNA	763	0.797	3.94	7.87	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	136	60 - 150	
IS	13C4-PFHpA	75.7	25 - 175	D
IS	18O2-PFHxS	86.6	60 - 150	D
IS	13C2-PFOA	71.4	60 - 150	D
IS	13C8-PFOS	67.3	60 - 150	D
IS	13C5-PFNA	71.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-4-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 11:45
Location:	clear /petroleum odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.124 L

Laboratory Data

Lab Sample:	1600783-02	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 04:38 Column: BEH C18 Analyst: BSR		
	29-Jun-16 02:56 Column: BEH C18 Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	321	1.80	4.03	8.05	
PFHpA	203	0.595	4.03	8.05	
PFHxS	5090	19.1	80.6	161	D
PFOA	1600	0.655	4.03	8.05	
PFOS	31000	16.2	80.6	161	D
PFNA	88.2	0.815	4.03	8.05	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	94.5	60 - 150	
IS	13C4-PFHpA	76.4	25 - 175	
IS	18O2-PFHxS	76.4	60 - 150	D
IS	13C2-PFOA	77.9	60 - 150	
IS	13C8-PFOS	68.5	60 - 150	D
IS	13C5-PFNA	68.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit
Results reported to MDL.
The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-8-0616

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007H3-03	Date Received:	1H-Jun-2016 H55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.123 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 12:45			Date Analyzed:	25-Jun-16 04:50 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / Qaint petr8leum 8d8r				29-Jun-16 03:44 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	171	1.H2	4.07	H15	
PFo pA	953	0.602	4.07	H15	
PFo xS	2470	9.65	40.7	H1.5	D
PFUA	12H0	0.663	4.07	H15	
PFUS	9020	H22	40.7	H1.5	D
PFNA	270	0.H25	4.07	H15	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	104	60 - 150	
IS	13C4-PFo pA	71.4	25 - 175	
IS	1HU2-PFo xS	76.6	60 - 150	D
IS	13C2-PFUA	H1.0	60 - 150	
IS	13CH-PFUS	72.0	60 - 150	D
IS	13C5-PFNA	70.6	50 - 150	

LCL-wCL - L8Ter c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
f he results 03r PFBS, PFo xS, PFUA and PFUS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-6-0616

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007HB-04	Date Received:	1H-Jun-2016 H:55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.126 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 10:55			Date Analyzed:	25-Jun-16 05:03 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 03:57 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	215	1.77	3.97	7.92	
PFo pA	450	0.5H5	3.97	7.92	
PFo xS	3540	9.3H	39.7	79.2	D
PFOA	1460	0.645	3.97	7.92	
PFOS	14H00	7.99	39.7	79.2	D
PFNA	317	0.H02	3.97	7.92	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	91.6	60 - 150	
IS	13C4-PFo pA	73.6	25 - 175	
IS	1H02-PFo xS	H7.1	60 - 150	D
IS	13C2-PFOA	H2.9	60 - 150	
IS	13CH-PFOS	H2.4	60 - 150	D
IS	13C5-PFNA	70.1	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-3-0616

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007HB-05	Date Received:	1H-Jun-2016 H55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.125 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 12:05			Date Analyzed:	25-Jun-16 05:15 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 04:09 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	335	1.HD	4.00	H03	
PFo pA	267	0.593	4.00	H03	
PFo xS	H700	9.50	40.0	HD.3	D
PFOA	5570	6.53	40.0	HD.3	D
PFOS	17200	H10	40.0	HD.3	D
PFNA	53.0	0.HI3	4.00	H03	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	115	60 - 150	
IS	13C4-PFo pA	HD.5	25 - 175	
IS	1HD2-PFo xS	HI.4	60 - 150	D
IS	13C2-PFOA	HB.4	60 - 150	D
IS	13CH-PFOS	74.7	60 - 150	D
IS	13C5-PFNA	72.9	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OFPOL-MW-3P-0616

Modified EPA Method 537

Client Data

Name:	CH2M Hill
Project:	Fentress Phase II PFC Investigation
Date Collected:	17-Jun-2016 12:10
Location:	Clear / no odor

Sample Data

Matrix:	Aqueous
Sample Size:	0.113 L

Laboratory Data

Lab Sample:	1600783-06	Date Received:	18-Jun-2016 8:55
QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date Analyzed:	25-Jun-16 05:28 Column: BEH C18 Analyst: BSR		
	29-Jun-16 04:21 Column: BEH C18 Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	397	1.99	4.42	8.88	
PFHpA	260	0.656	4.42	8.88	
PFHxS	8380	10.5	44.2	88.8	D
PFOA	5620	7.22	44.2	88.8	D
PFOS	18600	8.95	44.2	88.8	D
PFNA	52.7	0.899	4.42	8.88	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	104	60 - 150	
IS	13C4-PFHpA	86.6	25 - 175	
IS	18O2-PFHxS	78.4	60 - 150	D
IS	13C2-PFOA	81.8	60 - 150	D
IS	13C8-PFOS	83.7	60 - 150	D
IS	13C5-PFNA	78.7	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to MDL.

The results for PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Sample ID: OFPOL-MW-2-0616

Modified EPA Method 537

Client Data

Name: Co 2M o ill
Pr8ject: Fentress Phase II PFC Investigati8n
Date C8llected: 17-Jun-2016 13:45
L8cati8n: Clear / n8 8d8r

Sample Data

Matrix: Aque8us
Sample Size: 0.121 L

Laboratory Data

Lab Sample: 16007HB-07 Date Received: 1H-Jun-2016 H55
QC Batch: B6F0136 Date Extracted: 24-Jun-2016 7:39
Date Analyzed: 25-Jun-16 05:41 C8lumn: BEo C1H Analyst: BSR
29-Jun-16 04:33 C8lumn: BEo C1H Analyst: PBW

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	202	1.H5	4.13	H25	
PFo pA	1H4	0.610	4.13	H25	
PFo xS	3300	9.77	41.3	H2.5	D
PFOA	1150	0.672	4.13	H25	
PFOS	12700	H33	41.3	H2.5	D
PFNA	63.5	0.HB6	4.13	H25	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	H1.7	60 - 150	
IS	13C4-PFo pA	72.6	25 - 175	
IS	1HO2-PFo xS	74.4	60 - 150	D
IS	13C2-PFOA	H1.4	60 - 150	
IS	13CH-PFOS	6H2	60 - 150	D
IS	13C5-PFNA	6H9	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OF-MW63-0161

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007HB-0H	Date Received:	1H-Jun-2016 H:55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.121 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 14:10			Date Analyzed:	25-Jun-16 05:54 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 04:45 C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	77.0	1.H5	4.13	H2H	
PFo pA	36.H	0.612	4.13	H2H	
PFo xS	2090	4.90	20.7	41.4	D
PFOA	657	0.674	4.13	H2H	
PFOS	4090	4.1H	20.7	41.4	D
PFNA	4.H5	0.HB9	4.13	H2H	J

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	HB.4	60 - 150	
IS	13C4-PFo pA	77.2	25 - 175	
IS	1HO2-PFo xS	H6.0	60 - 150	D
IS	13C2-PFOA	HB.6	60 - 150	
IS	13CH-PFOS	73.9	60 - 150	D
IS	13C5-PFNA	HH.6	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

Sample ID: OF-MW66-0161

Modified EPA Method 537

Client Data		Sample Data		Laboratory Data			
Name:	Co 2M o ill	Matrix:	Aque8us	Lab Sample:	16007HB-09	Date Received:	1H-Jun-2016 H:55
Pr8ject:	Fentress Phase II PFC Investigati8n	Sample Size:	0.127 L	QC Batch:	B6F0136	Date Extracted:	24-Jun-2016 7:39
Date C8llected:	17-Jun-2016 14:45			Date Analyzed:	25-Jun-16 06:06 C8lumn: BEo C1H Analyst: BSR		
L8cati8n:	Clear / n8 8d8r				29-Jun-16 04:5H C8lumn: BEo C1H Analyst: PBW		

Analyte	Conc. (ng/L)	MDL	LOD	LOQ	Qualifiers
PFBS	1420	1.77	3.94	7.90	
PFo pA	403	0.5H4	3.94	7.90	
PFo xS	7H60	4.6H	19.7	39.5	D
PFOA	41H	0.643	3.94	7.90	
PFOS	5320	3.99	19.7	39.5	D
PFNA	20.5	0.HD0	3.94	7.90	

	Labeled Standard	%R	LCL-UCL	Qualifiers
IS	13C3-PFBS	H5.3	60 - 150	
IS	13C4-PFo pA	H4.3	25 - 175	
IS	1HD2-PFo xS	H2.5	60 - 150	D
IS	13C2-PFOA	H3.9	60 - 150	
IS	13CH-PFOS	7H2	60 - 150	D
IS	13C5-PFNA	79.4	50 - 150	

LCL-UCL - L8wer c8ntr8l limit - upper c8ntr8l limit
Results rep8rted t8 MDL.
The results f8r PFBS, PFo xS, PFOA and PFOS include b8th linear and branched is8mers.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The associated compound concentration exceeded the calibration range of the instrument.**
H	**Recovery and/or RPD was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Lower Calibration Limit of the instrument.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN OF CUSTODY

Vista

CTO-WE01

FOR LABORATORY USE ONLY — Storage Secured ✓ Yes ☐ No ☐

Laboratory Project ID: 1600783

Storage ID WR-2 Temp -0.9 °C

TAT: (Check One):
Standard: ○ 21 Days
Rush (surcharge may apply):
● 14 days ○ 7 days Specify:

Project I.D.: Fentress Phase II PFC Investigation P.O.# CTO-WE01 Sampler: Andrew Winebrenner, Mark Ost (Name)

Invoice to: Name Tiffany Hill Company CH2M HILL Address 5701 Cleveland St, Suite 200 City Virginia Beach State VA Zip 23462 Ph# 541-768-3109 Fax#

Relinquished by: (Signature and Printed Name) Andrew Winebrenner Date: Time: Received by: (Signature and Printed Name) Date: 6/18/16 Time: 08:55

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

ATTN:

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCB's	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1614 PAH	CARB429 WHO-29	537 Mod 5vsc (PFCs)
OFPOL-MW-7-0616	6/17/16	1035	POL well / Clear / faint petroleum odor	2	P	AQ															X	
OFPOL-MW-4-0616	6/17/16	1145	Clear / petroleum odor	2	P	AQ															X	
OFPOL-MW-8-0616	6/17/16	1245	Clear / faint petroleum odor	2	P	AQ															X	
OFPOL-MW-6-0616	6/17/16	1055	Clear / No odor	2	P	AQ															X	
OFPOL-MW-3-0616	6/17/16	1205	Clear / No odor	2	P	AQ															X	
OFPOL-MW-3P-0616	6/17/16	1210	Clear / No odor	2	P	AQ															X	
OFPOL-MW-2-0616	6/17/16	1345	Clear / No odor	2	P	AQ															X	
OF-MW13-0616	6/17/16	1410	Clear / No odor	2	P	AQ															X	
OF-MW11-0616	6/17/16	1445	Clear / No odor	2	P	AQ															X	

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M HILL
Address: 5701 Cleveland St, Suite 200
City: Virginia Beach State: VA Zip: 23462
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other 125 mL HDPE

*Bottle Preservative Type: T = Thiosulfate,
O = Other None

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, (AQ) = Aqueous, O = Other

WHITE - ORIGINAL YELLOW - ARCHIVE PINK - COPY

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 1600783 **TAT** 14

Samples Arrival:	**Date/Time** 06/18/16 08:55	**Initials:**	**Location:** WA-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 06/20/16 0951	**Initials:** RSB	**Location:** WR-2 **Shelf/Rack:** F5

Delivered By:	(FedEx)	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C: 0.4 (uncorrected) **Temp °C:** -0.9°C (corrected)	**Time:** 09:02		**Thermometer ID:** IR-2			

	YES	NO	NA
Adequate Sample Volume Received? A3B	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	—		
Shipping Custody Seals Intact?	—		
Shipping Documentation Present?	—		
Airbill Trk # 783380972288	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	(None)	
Shipping Container	(Vista)	Client	Retain	Return	Dispose

Comments:

Sample Label ID	Date	time	COC sample ID	Date	time
OFPOL-MW-2-0616	5/17/16	1325	OFPOL-MW-2-0616	6/17/16	1345

6/20/16 gp

Sample Login 11/2013 ckt

Chain of Custody Anomaly/Sample Acceptance Form

Vista Analytical Laboratory

Client: CH2M Hill
Contact: Tiffany Hill
Email: tiffany.hill@ch2m.com
Phone: (541) 768-3109

Workorder Number: 1600783
Date Received: 18-Jun-16 09:51
Documented by/date: B.Benedict 06/20/2016

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank you,

Martha Maier
mmaier@vista-analytical.com
916-673-1520

The following information or item is needed to proceed with analysis:

- [ ] Complete Chain-of-Custody
- [ ] Test Method Requested
- [ ] Analyte List Requested
- [ ] Other:
- [ ] Preservative
- [ ] Sample Identification
- [X] Sample Collection Date and/or Time
- [ ] Collector's Name
- [ ] Sample Type
- [ ] Sample Location

The following anomalies were noted. Authorization is needed to proceed with analysis.

- [ ] Temperature outside < 6°C Range — Samples Affected: _____
  Temperature _____°C Ice Present? Yes No Melted
- [ ] Sample ID Discrepancy
- [ ] Sample Holding Time Missed
- [ ] Custody Seals Broken
- [ ] Insufficient Sample Size
- [ ] Sample Container(s) Broken
- [ ] Incorrect Container Type

Comments:

Sample Label ID	Date	Time	COC Sample ID	Date	Time
OFPOL-MW-2-0616	5/17/16	1325	OFPOL-MW-2-0616	6/17/16	1345

Client Authorization

Proceed with Analysis: (YES) NO Signature and Date [signature] 7/11/16

Client Comments/Instructions EMAILed to use COC time

EXTRACTION INFORMATION

Process Sheet

Workorder: 1600783

Prep Expiration: 07/01/2016
Client: CH2M Hill

Workorder Due: 02-Jul-16 00:00

TAT: 14

Method: **537 PFAS 6 DOD (LOQ as mRL)**
Matrix: **Aqueous**
Client Matrix: Aqueous

Prep Batch: B6F0136

Prep Data Entered: 6/27/16 NK
Date and Initials

Initial Sequence: S6F00636

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1600783-01 (A)	☑	OFPOL-MW-7-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-02	☑	OFPOL-MW-4-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-03	☑	OFPOL-MW-8-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-04	☑	OFPOL-MW-6-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-05	☑	OFPOL-MW-3-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-06	☑	OFPOL-MW-3P-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-07	☑	OFPOL-MW-2-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-08	☑	OF-MW13-0616	18-Jun-16 08:55	WR-2 F-5	
1600783-09	☑	OF-MW11-0616	18-Jun-16 08:55	WR-2 F-5	

Vista PM:Martha Maier

Vial Box ID: Glass 1, Mouse

Sample Reconciled By: N.King 6/24/16

Page 1 of 1

Percent Solids

Vista Analytical Laboratory

Project: B6F0136 **Balance ID:** N/A

Sample ID	Chemist: N/A Date: Time: Boat Wt.	Sample + Boat Wt.	Chemist: N/A Date: Time: Residue + Boat Wt.	Chemist/Date NK 6/24/16 pH before	pH* after	Cl
1600779-01			(A)	8	2	0
1600783-01				7	2	0
-02				7	2	0
-03			(B)	6	2	0
-04			(A)	7	2	0
-05			(B)	6	2	0
-06				5	2	0
-07				6	2	0
-08				6	2	0
-09				6	2	0
1600784-01				5	2	0
1600786-01			(A)	7	2	0

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

(A) Samples adjusted with 3 drops HCl - NK 6/24/16

(B) Samples adjusted with 2 drops HCl - NK 6/24/16

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS 6 Analyte List

Method: 537 PFAS 6 DOD (LOQ as mR

B6F0136

Chemist: N.King

Prep Date/Time: 24-Jun-16 07:39

Prepared using: LCMS - SPE Extraction-LCMS

C6F0116

C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE (INJ 6/24/16) 6/24/16	SPE	RS CHEM/WIT DATE
☐	B6F0136-BLK1	N/A	N/A	(0.125)	NK INJ 6/24/16	NK 6/24/16	NK ESD 6/24/16
☐	B6F0136-BS1			(0.125)			
☐	B6F0136-BSD1			(0.125)			
☐	1600779-01RE1 (C)(D)	132.10	27.24	0.10486			
☐	1600783-01 (C)	154.19	27.14	0.12705			
☐	1600783-02 (B)(C)	151.33	27.15	0.12418			
☐	1600783-03 (A)(B)(C)	149.81	27.11	0.12270			
☐	1600783-04	153.32	27.11	0.12621			
☐	1600783-05 (B)	151.72	27.13	0.12459			
☐	1600783-06 (B)	139.78	27.11	0.11267			
☐	1600783-07 (B)(C)	148.37	27.22	0.12115			
☐	1600783-08 (C)	147.86	27.14	0.12072			
☐	1600783-09 (A)(C)	153.73	27.21	0.12652			
☐	1600784-01	151.18	26.97	0.12421			
☐	1600786-01 (A)(C)	155.73	26.96	0.12877			

(A) Samples centrifuged. NK 6/24/16 (D) Deep red color at final volume. NK 6/24/16

IS Name (13)	NS Name (V4)	RS Name (V5)		
16E0580, 10 µL	16E0701, 10 µL	16F0203, 10 µL	SPE Chem: Strata XAW 33µm 200mg/6mL Ele SOLV: MeOH + 0.5% NH4OH in MeOH Final Volume(s) ____ mL	Check Out: Chemist/Date: NK 6/24/16 Check In: Chemist/Date: ____ Balance ID: HRMS-9

Comments: Assume 1 g = 1 mL

(B) Strong petroleum smell. NK 6/24/16

(C) Particulate/Color present in SPE cartridge from the sample. NK 6/24/16

SAMPLE DATA – MODIFIED EPA METHOD 537

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_17.qld

Last Altered: Monday, June 27, 2016 14:09:37 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:09:58 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: B6F0136-BLK1 Method Blank 0.125, Description: Method Blank, Name: 160624G3_17, Date: 25-Jun-2016, Time: 03:59:55

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1	PFBS	299 > 79.7		4.484e3		0.125			
2	2	PFHpA	363 > 318.9	2.651e1	1.760e4		0.125	3.99	0.126	
3	3	PFHxS	398.9 > 79.6	4.848e0	3.364e3		0.125	4.11	0.203	
4	4	PFOA	413 > 368.7	5.980e1	1.576e4		0.125	4.42	0.508	
5	5	PFOS	499 >79.9		5.989e3		0.125			
6	6	PFNA	463 > 418.8	9.661e0	1.332e4		0.125	4.78	0.0933	
7	7	13C3-PFBS	302.0 > 98.8	4.484e3	2.589e4	0.236	0.125	3.13	73.4	73.4
8	8	13C4-PFHpA	367.2 > 321.8	1.760e4	2.589e4	0.923	0.125	3.99	73.7	73.7
9	9	18O2-PFHxS	403 > 102.6	3.364e3	7.801e3	0.471	0.125	4.10	91.5	91.5
10	10	13C2-PFOA	414.9 > 369.7	1.576e4	2.004e4	1.088	0.125	4.42	72.3	72.3
11	11	13C8-PFOS	507 > 79.9	5.989e3	5.961e3	1.142	0.125	4.83	88.0	88.0
12	12	13C5-PFNA	468.2 > 422.9	1.332e4	1.793e4	1.008	0.125	4.77	73.7	73.7
13	13	13C5-PFHxA	318.0 > 272.9	2.589e4	2.589e4	1.000	0.125	3.47	100	100
14	14	13C3-PFHxS	401.9 > 79.9	7.801e3	7.801e3	1.000	0.125	4.10	100	100
15	15	13C8-PFOA	421.3 > 376	2.004e4	2.004e4	1.000	0.125	4.41	100	100
16	16	13C4-PFOS	503 > 79.9	5.961e3	5.961e3	1.000	0.125	4.83	100	100
17	17	13C9-PFNA	472.2 > 426.9	1.793e4	1.793e4	1.000	0.125	4.77	100	100
18	18	Total PFBS	299 > 79.7		4.484e3		0.125			
19	19	Total PFHxS	398.9 > 79.6		3.364e3		0.125		0.203	
20	20	Total PFOA	413 > 368.7		1.576e4		0.125		0.508	
21	21	Total PFOS	499 > 79.9		5.989e3		0.125			

Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_17.qld

Last Altered: Monday, June 27, 2016 14:09:37 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:09:58 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: B6F0136-BLK1 Method Blank 0.125, Description: Method Blank, Name: 160624G3_17, Date: 25-Jun-2016, Time: 03:59:55

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1							

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	4.848	3363.760	0.2

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	59.803	15755.452	0.5

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9			5989.044	

Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

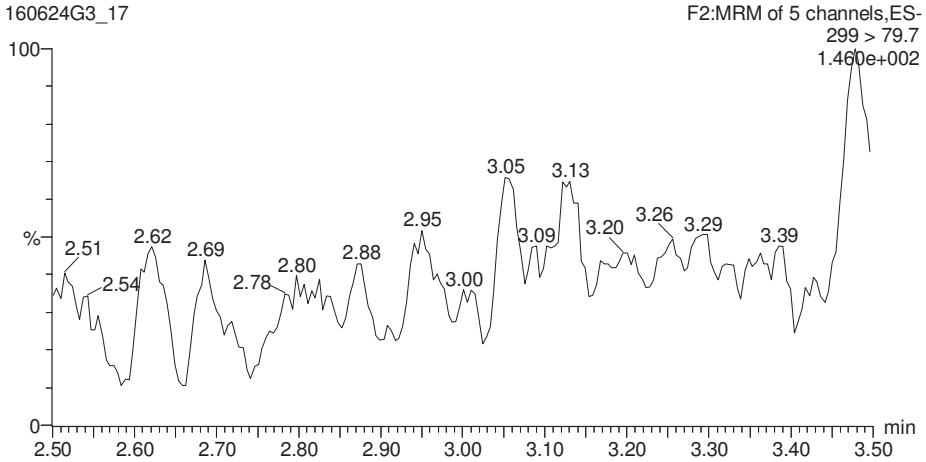
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Printed: Monday, June 27, 2016 14:09:58 Pacific Daylight Time

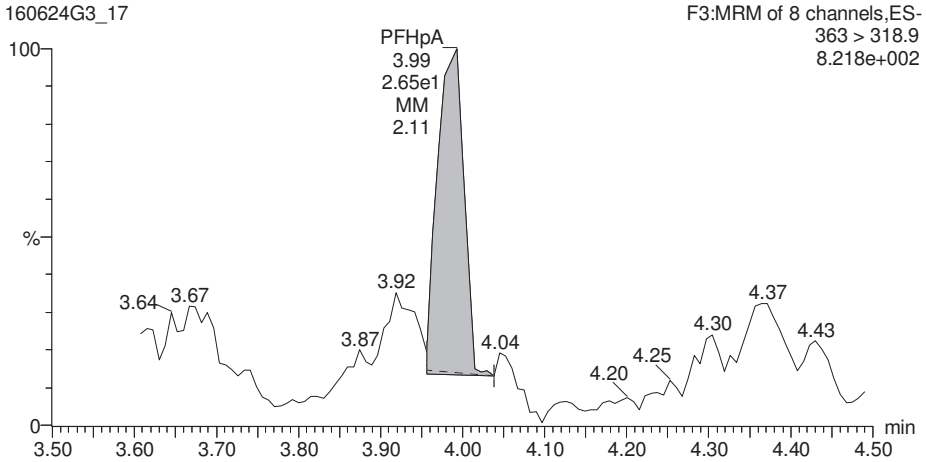
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ID: B6F0136-BLK1 Method Blank 0.125, Description: Method Blank, Name: 160624G3_17, Date: 25-Jun-2016, Time: 03:59:55, Instrument: , Lab: , User:

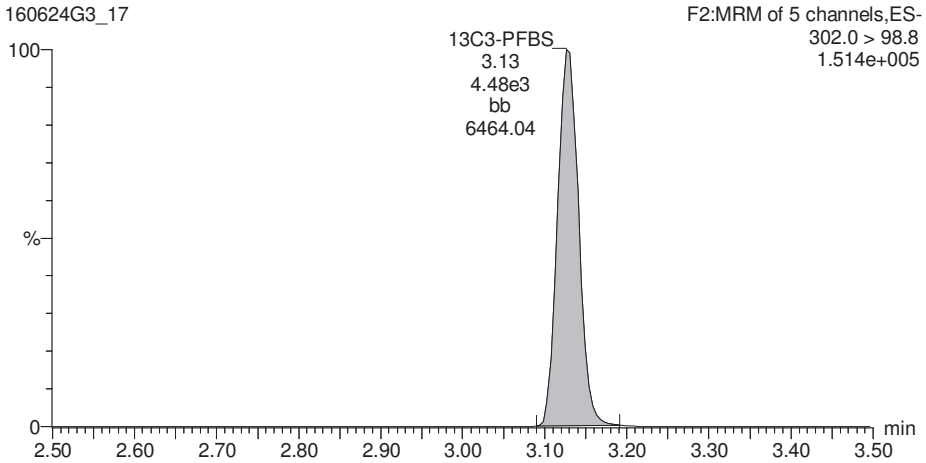
Total PFBS



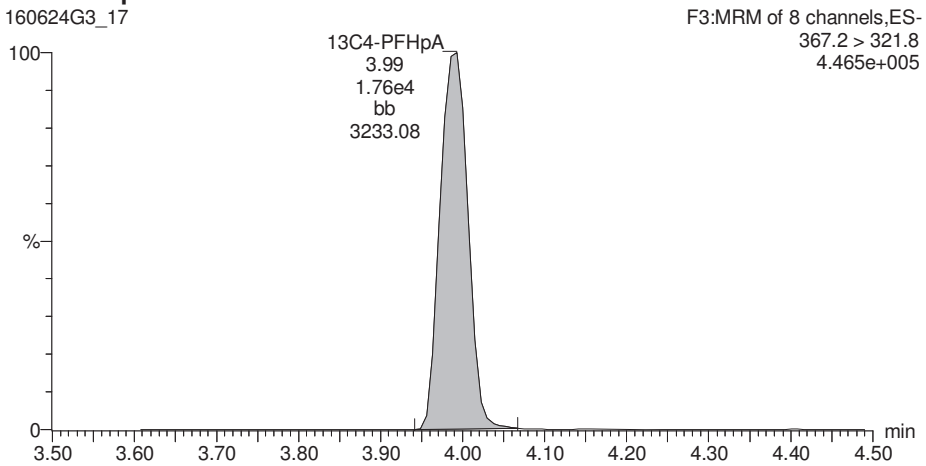
PFHpA



13C3-PFBS



13C4-PFHpA



Reviewed: WJL 6/30/16 BR 6/27/16

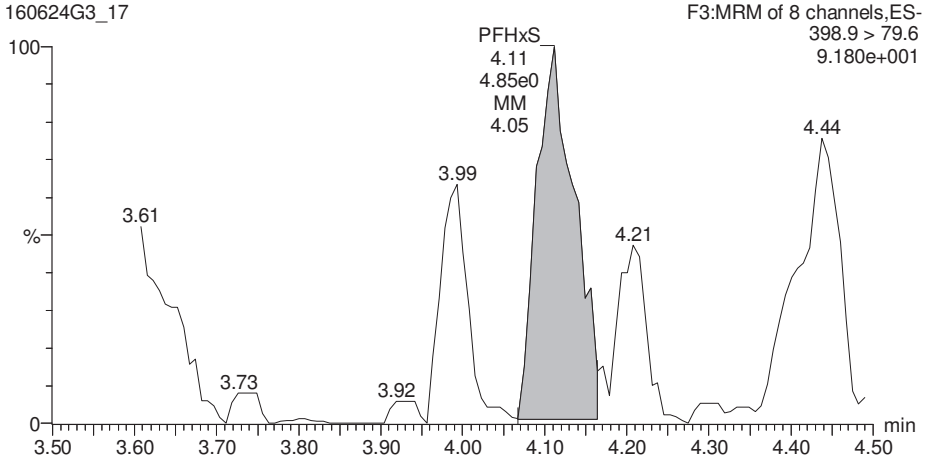
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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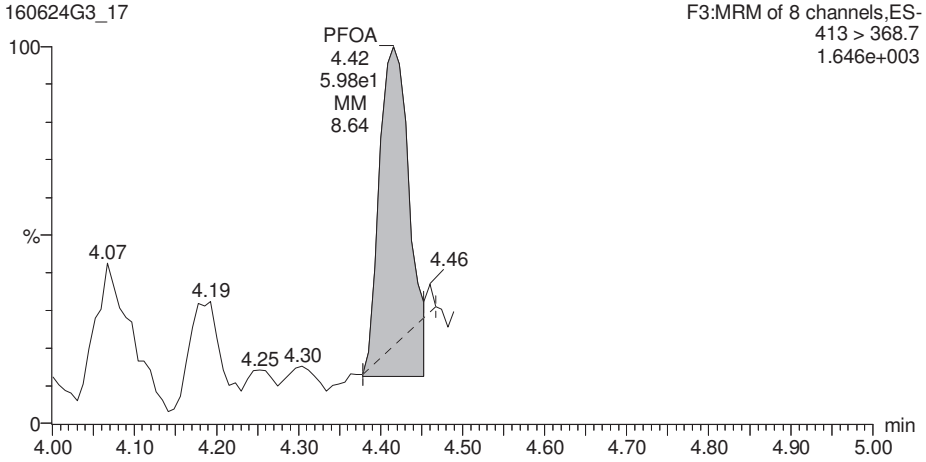
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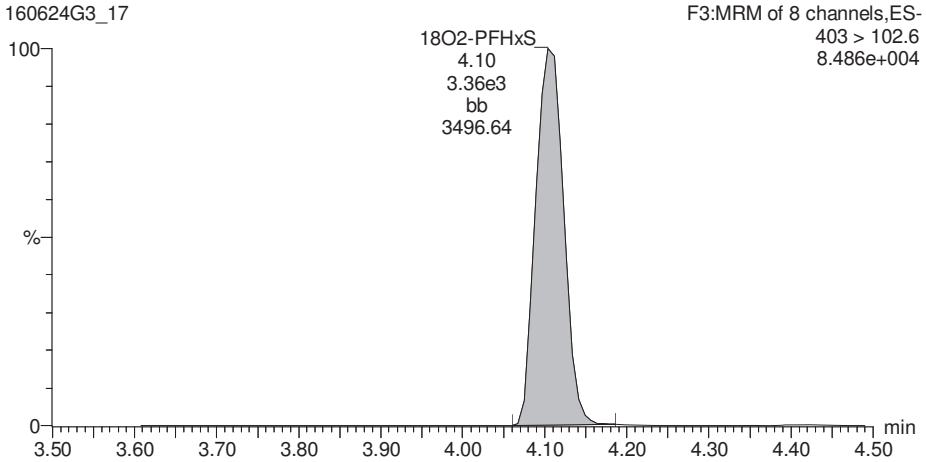
Total PFHxS



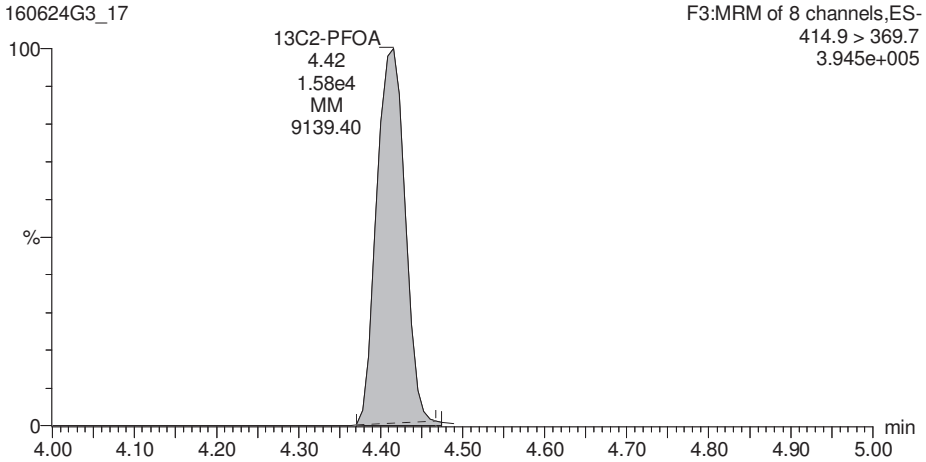
Total PFOA



18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 BR 6/27/16

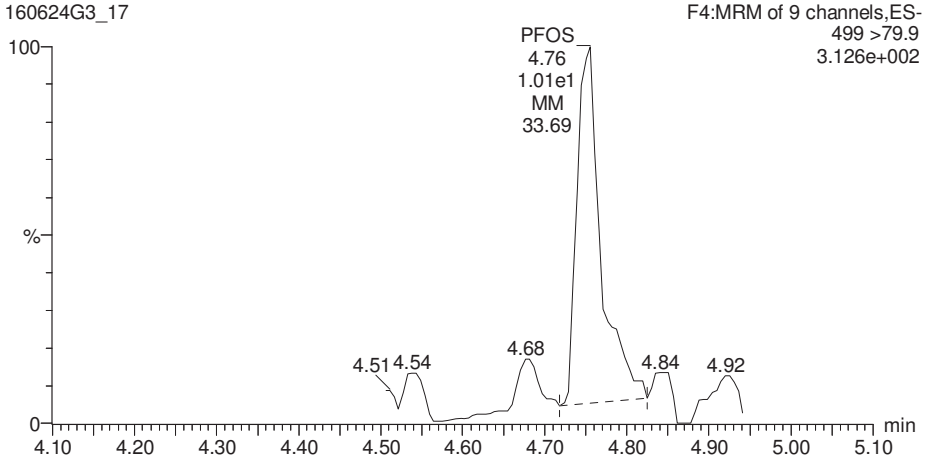
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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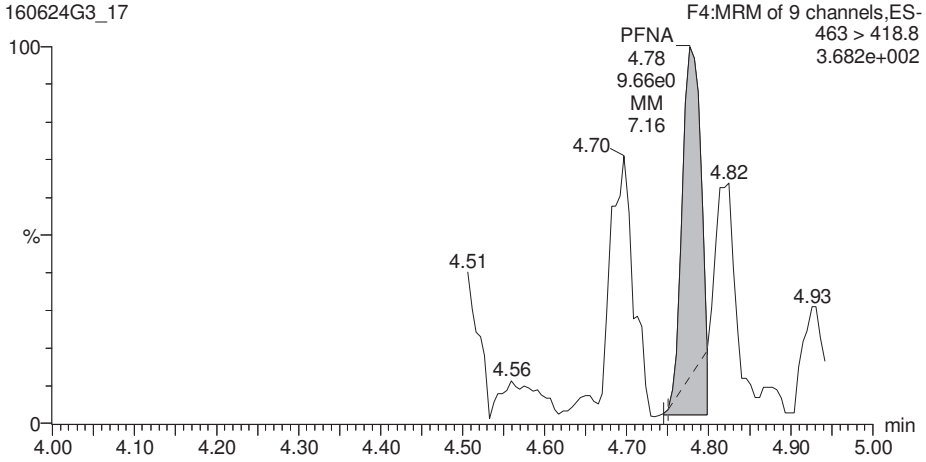
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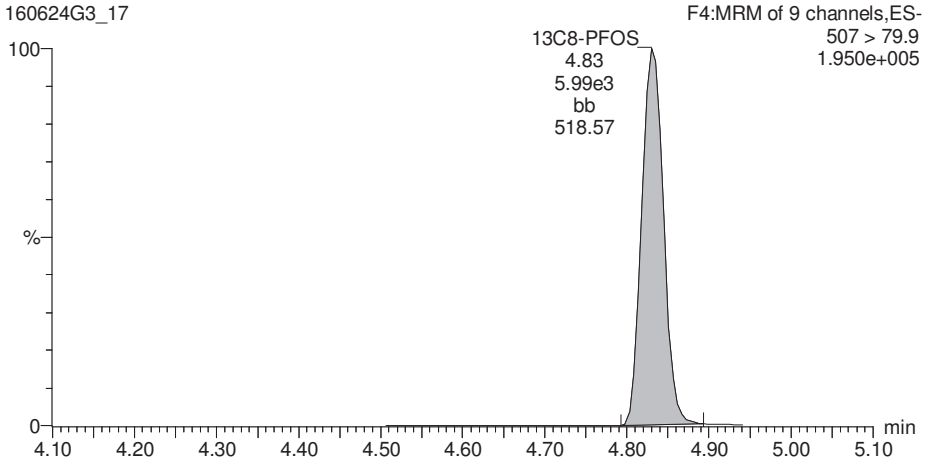
Total PFOS



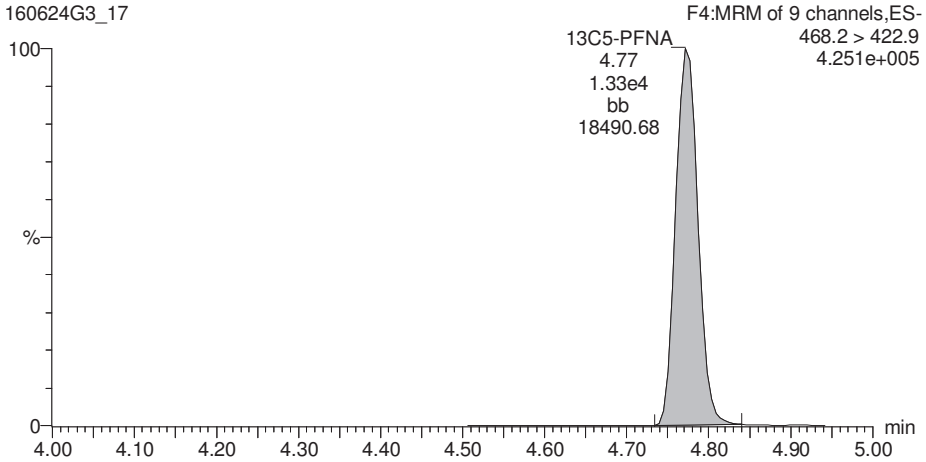
PFNA



13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16

BR 6/27/16

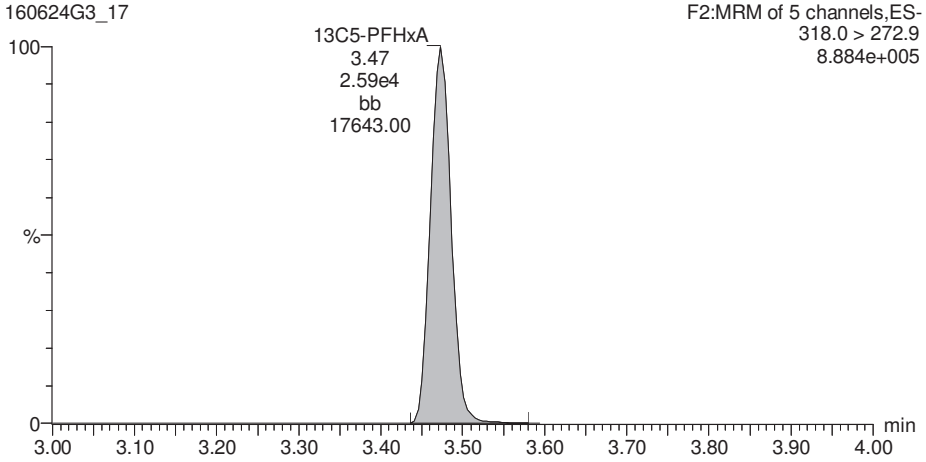
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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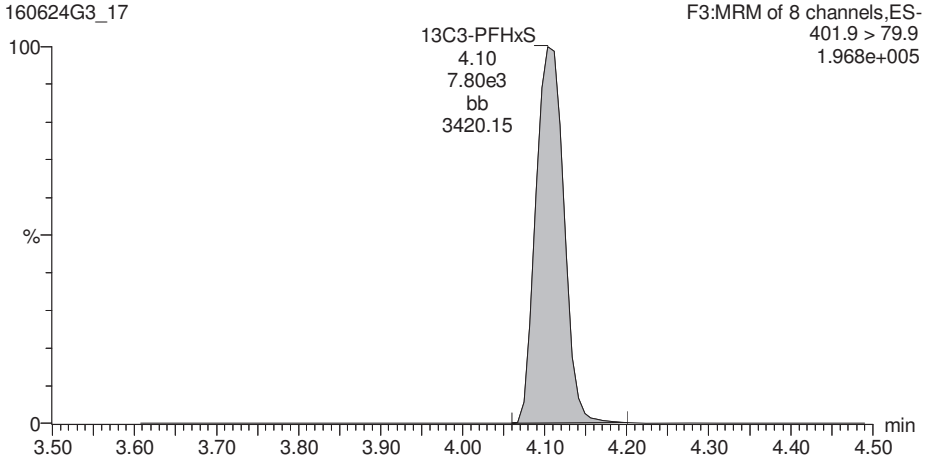
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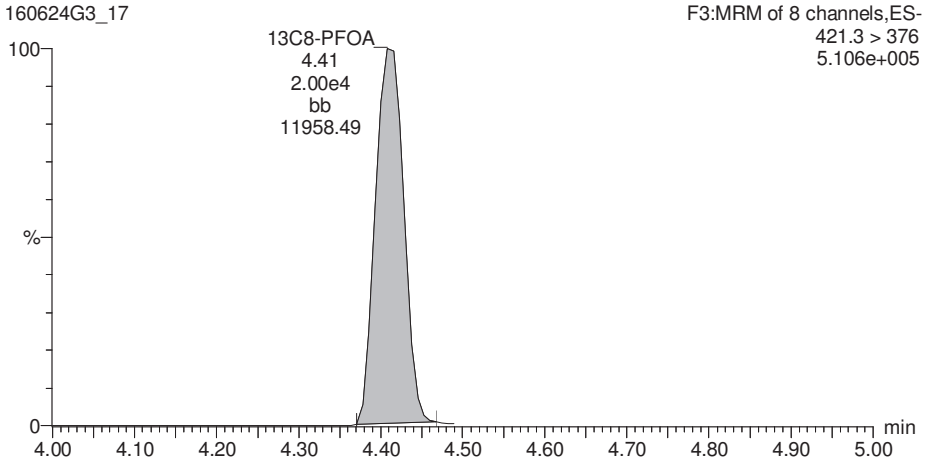
13C5-PFHxA



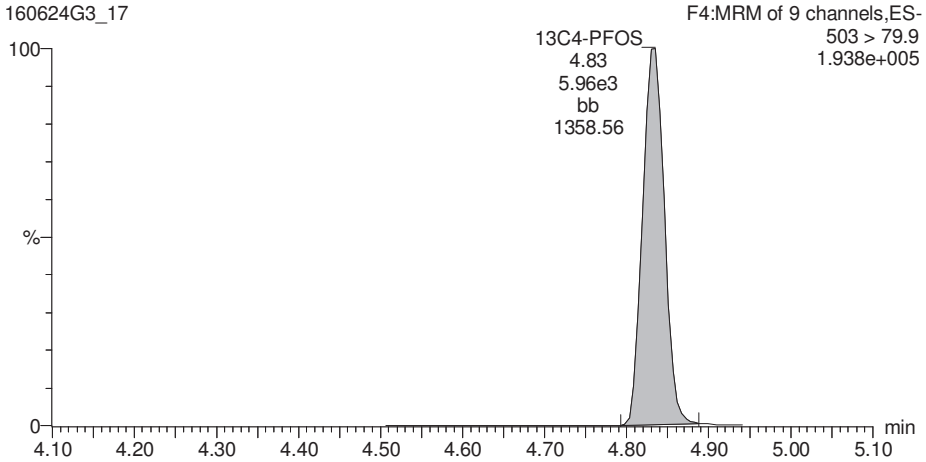
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/27/16

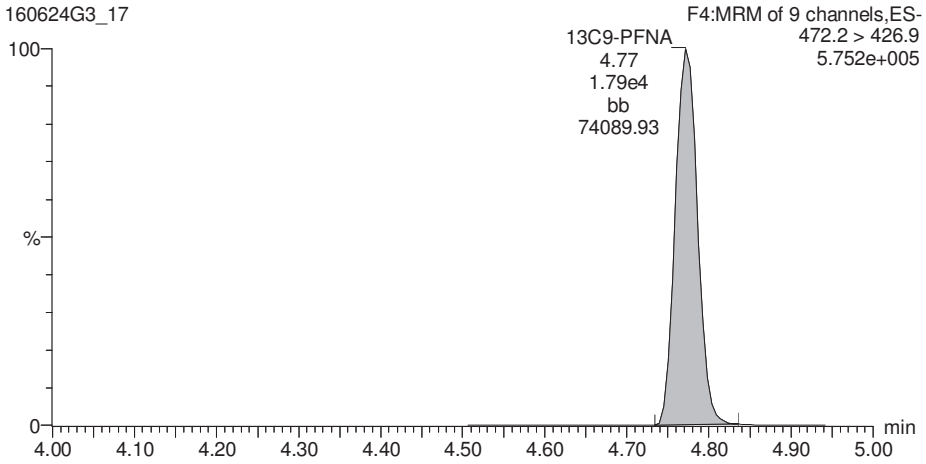
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_17.qld

Last Altered: Monday, June 27, 2016 14:09:37 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:09:58 Pacific Daylight Time

ID: B6F0136-BLK1 Method Blank 0.125, Description: Method Blank, Name: 160624G3_17, Date: 25-Jun-2016, Time: 03:59:55, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_14.qld

Last Altered: Monday, June 27, 2016 14:02:16 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:02:45 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: B6F0136-BS1 OPR 0.125, Description: OPR, Name: 160624G3_14, Date: 25-Jun-2016, Time: 03:21:53

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1	PFBS	299 > 79.7	3.153e3	4.512e3		0.125	3.13	84.9	106
2	2	PFHpA	363 > 318.9	1.780e4	1.669e4		0.125	3.99	89.2	111
3	3	PFHxS	398.9 > 79.6	1.755e3	3.058e3		0.125	4.10	79.9	99.8
4	4	PFOA	413 > 368.7	9.646e3	1.607e4		0.125	4.42	80.3	100
5	5	PFOS	499 >79.9	1.412e3	4.426e3		0.125	4.83	69.1	86.4
6	6	PFNA	463 > 418.8	8.042e3	1.328e4		0.125	4.77	77.8	97.2
7	7	13C3-PFBS	302.0 > 98.8	4.512e3	2.442e4	0.236	0.125	3.13	78.3	78.3
8	8	13C4-PFHpA	367.2 > 321.8	1.669e4	2.442e4	0.923	0.125	3.99	74.1	74.1
9	9	18O2-PFHxS	403 > 102.6	3.058e3	7.498e3	0.471	0.125	4.10	86.6	86.6
10	10	13C2-PFOA	414.9 > 369.7	1.607e4	1.802e4	1.088	0.125	4.41	82.0	82.0
11	11	13C8-PFOS	507 > 79.9	4.426e3	4.559e3	1.142	0.125	4.83	85.0	85.0
12	12	13C5-PFNA	468.2 > 422.9	1.328e4	1.656e4	1.008	0.125	4.77	79.5	79.5
13	13	13C5-PFHxA	318.0 > 272.9	2.442e4	2.442e4	1.000	0.125	3.47	100	100
14	14	13C3-PFHxS	401.9 > 79.9	7.498e3	7.498e3	1.000	0.125	4.10	100	100
15	15	13C8-PFOA	421.3 > 376	1.802e4	1.802e4	1.000	0.125	4.41	100	100
16	16	13C4-PFOS	503 > 79.9	4.559e3	4.559e3	1.000	0.125	4.83	100	100
17	17	13C9-PFNA	472.2 > 426.9	1.656e4	1.656e4	1.000	0.125	4.77	100	100

Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_14.qld

Last Altered: Monday, June 27, 2016 14:02:16 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:02:45 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: B6F0136-BS1 OPR 0.125, Description: OPR, Name: 160624G3_14, Date: 25-Jun-2016, Time: 03:21:53

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	3153.280	4511.855	84.9

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.10	1755.311	3057.779	79.9

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	9645.554	16072.272	80.3

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	1412.430	4425.521	69.1

Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

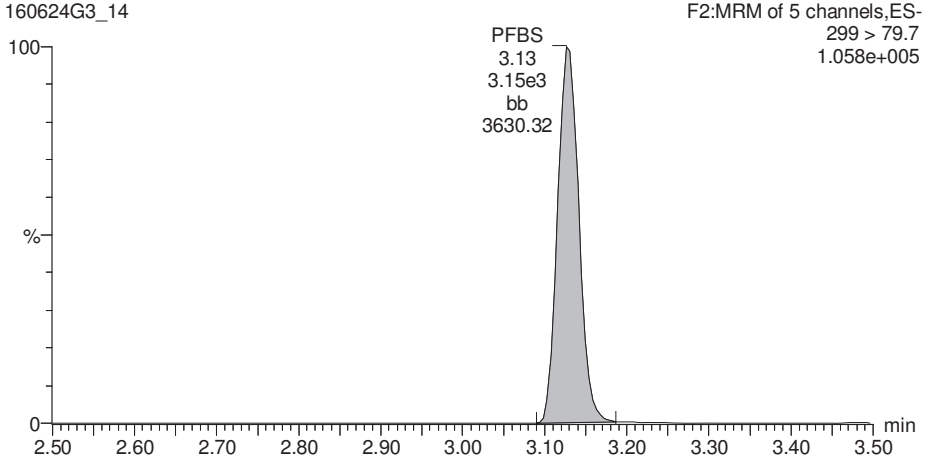
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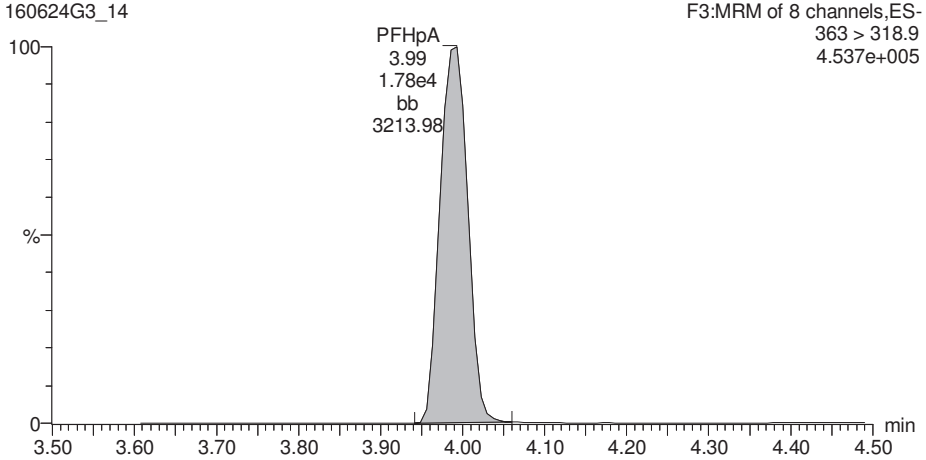
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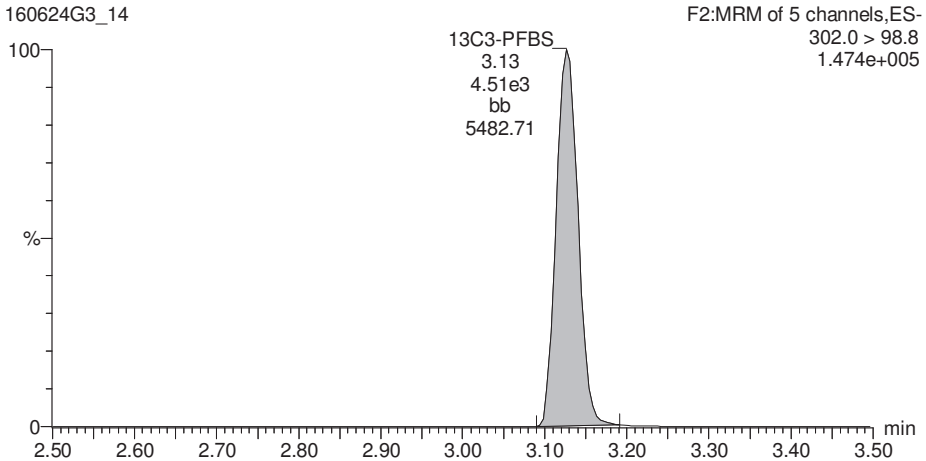
Total PFBS



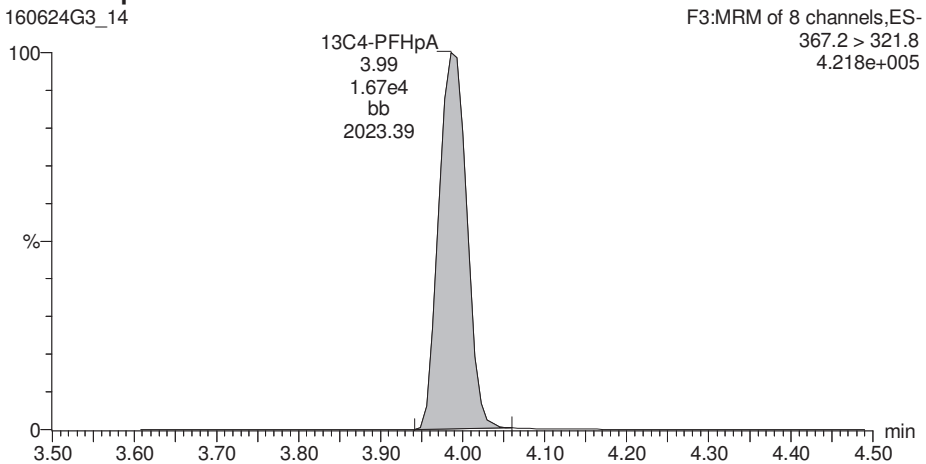
PFHpA



13C3-PFBS



13C4-PFHpA



Reviewed: WJL 6/30/16 BR 6/27/16

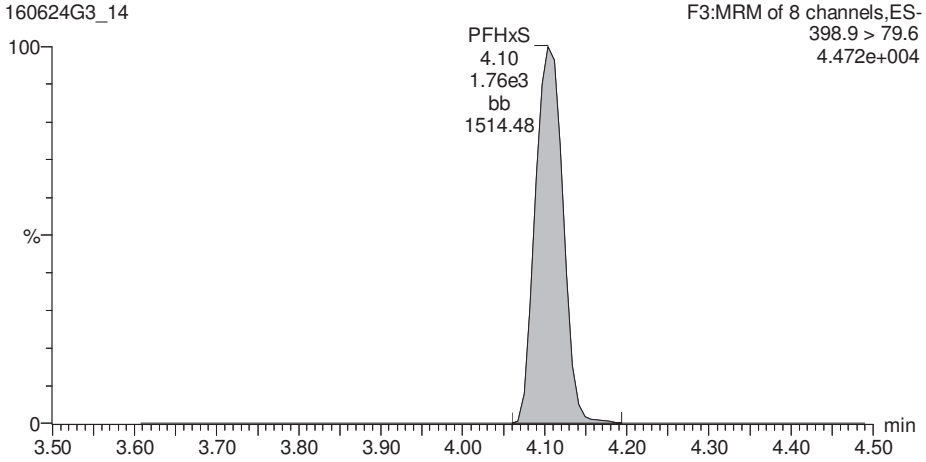
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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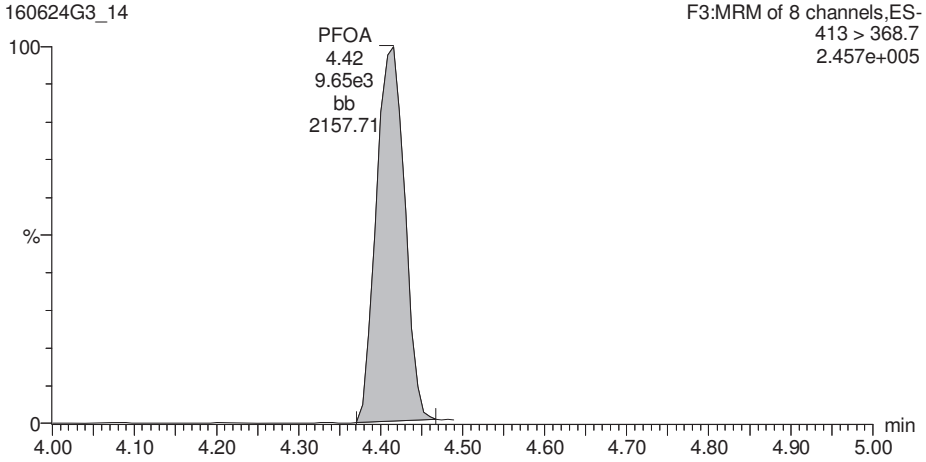
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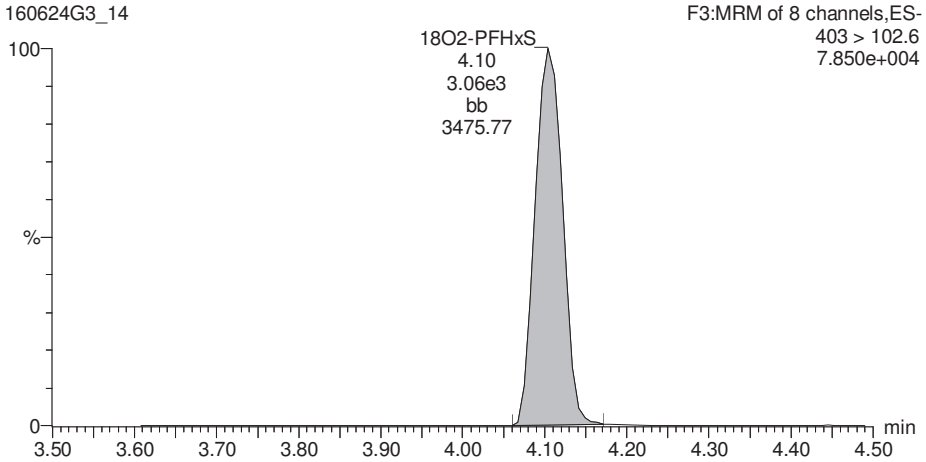
Total PFHxS



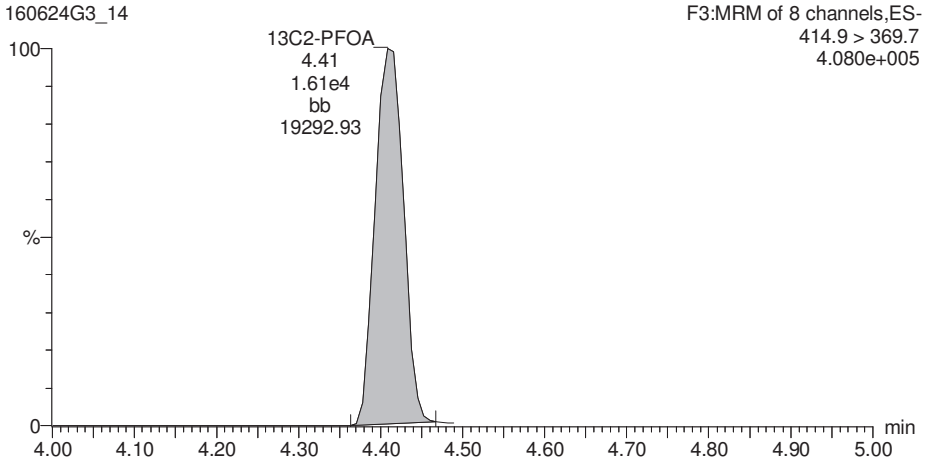
Total PFOA



18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 BR 6/27/16

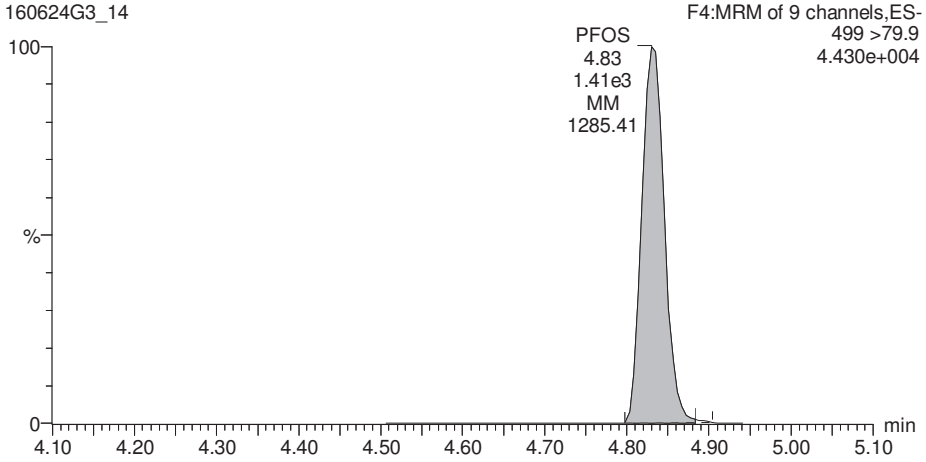
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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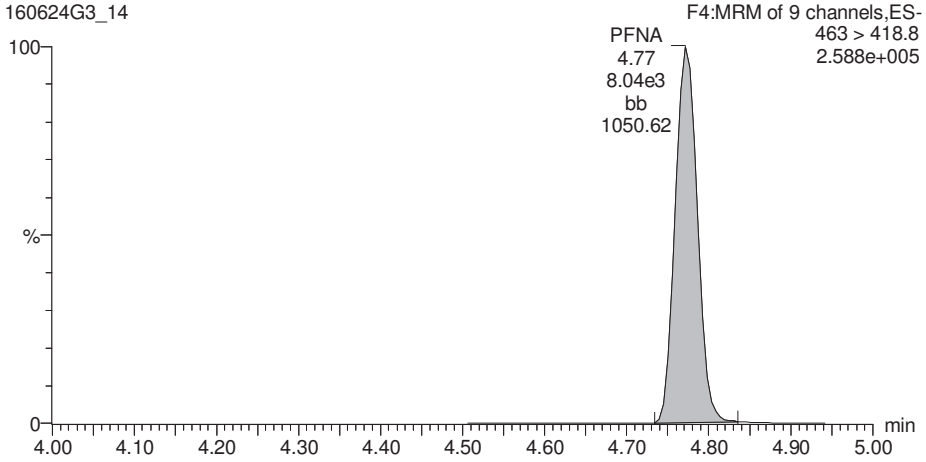
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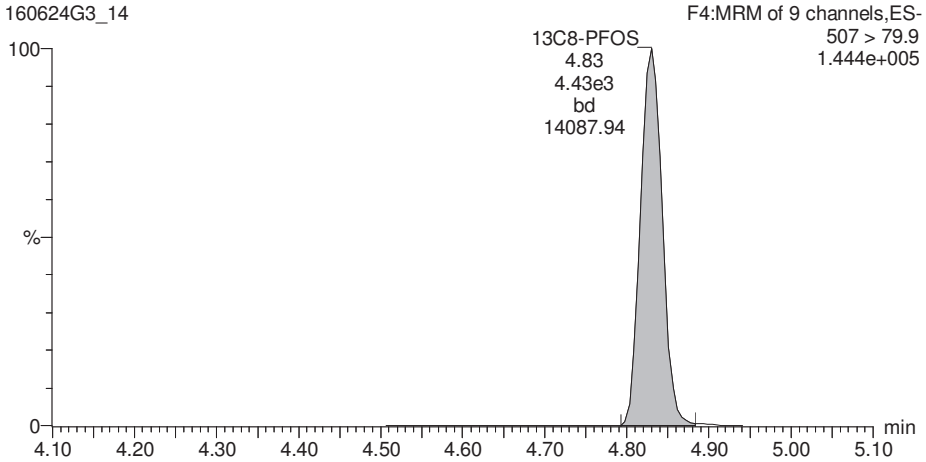
Total PFOS



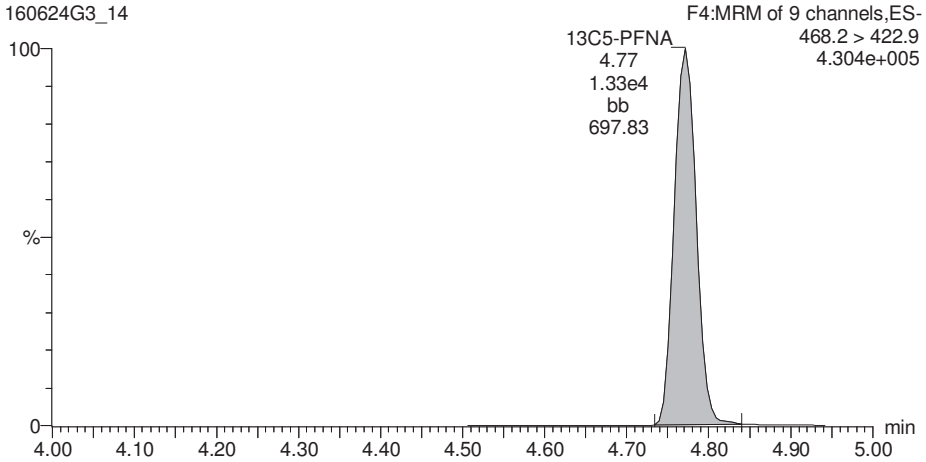
PFNA



13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 BR 6/27/16

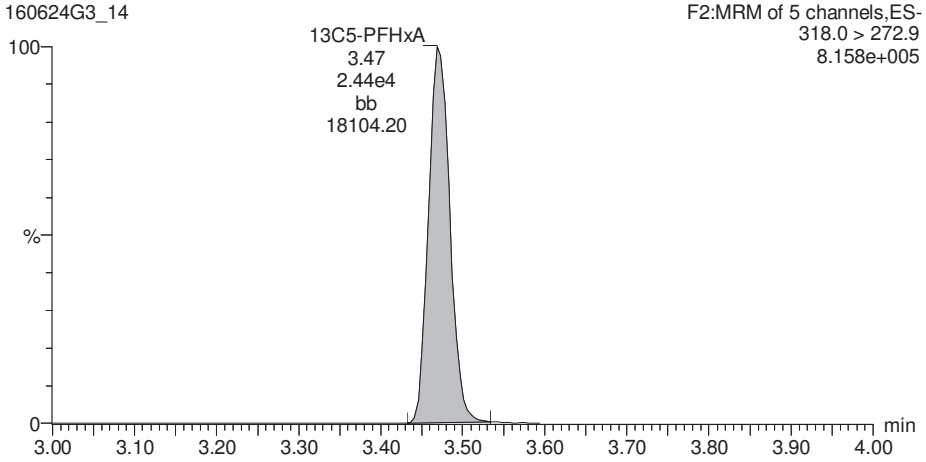
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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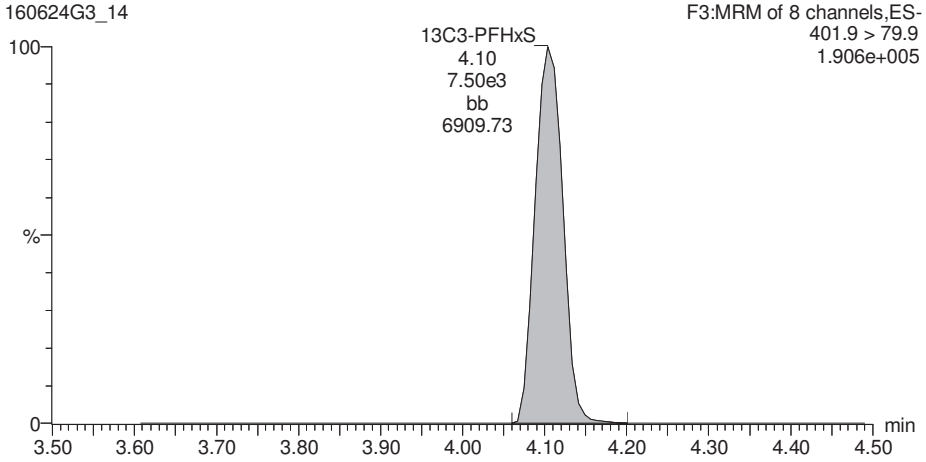
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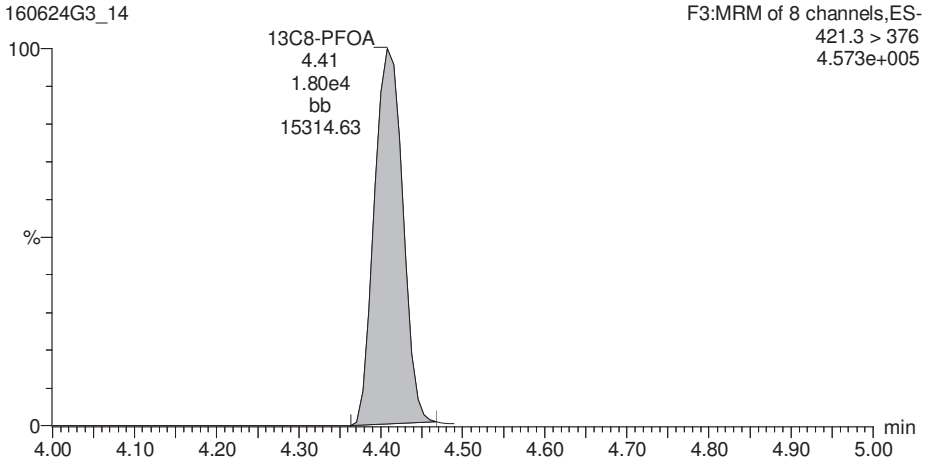
13C5-PFHxA



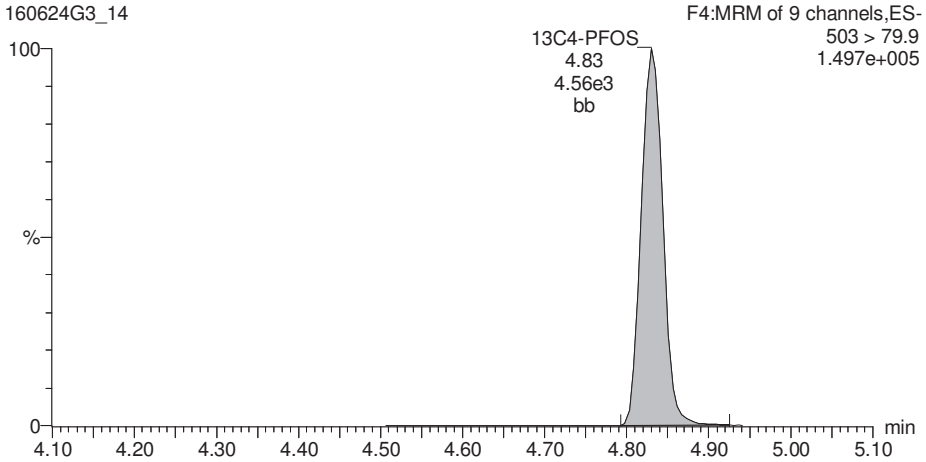
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/27/16

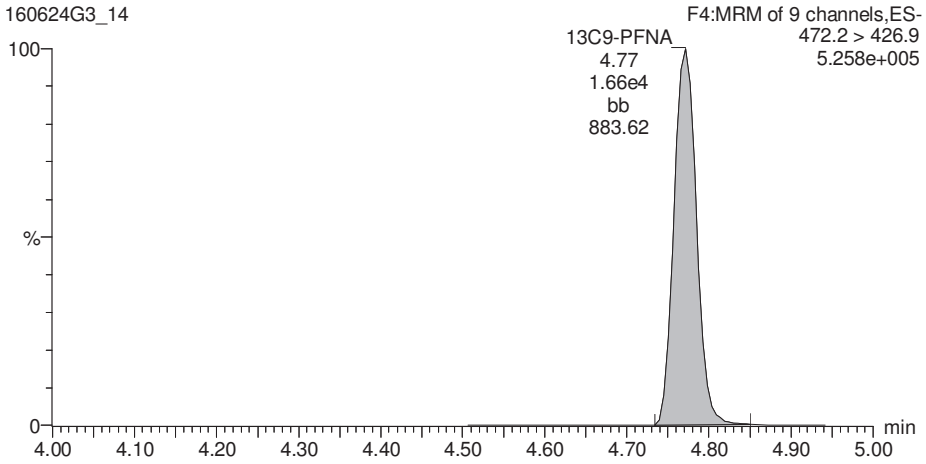
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_14.qld

Last Altered: Monday, June 27, 2016 14:02:16 Pacific Daylight Time
Printed: Monday, June 27, 2016 14:02:45 Pacific Daylight Time

ID: B6F0136-BS1 OPR 0.125, Description: OPR, Name: 160624G3_14, Date: 25-Jun-2016, Time: 03:21:53, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/27/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_19.qld

Last Altered: Wednesday, June 29, 2016 13:13:49 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 13:14:28 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	3.263e4	4.354e3		0.127	3.12	823		
2	2	PFHpA	363 > 318.9	2.824e5	8.292e3		0.127	3.99	2870	E*	
3	3	PFHxS	398.9 > 79.6	1.520e5	1.952e3		0.127	4.10	5890	E*	
4	4	PFOA	413 > 368.7	2.960e5	1.208e4		0.127	4.41	3230	E*	
5	5	PFOS	499 >79.9	3.814e5	1.758e3		0.127	4.83	26900	E**	
6	6	PFNA	463 > 418.8	6.906e4	1.129e4		0.127	4.77	763		
7	7	13C3-PFBS	302.0 > 98.8	4.354e3	1.353e4	0.236	0.127	3.12	134		136
8	8	13C4-PFHpA	367.2 > 321.8	8.292e3	1.353e4	0.923	0.127	3.99	65.4	*	66.4
9	9	18O2-PFHxS	403 > 102.6	1.952e3	4.200e3	0.471	0.127	4.10	97.1	*	98.7
10	10	13C2-PFOA	414.9 > 369.7	1.208e4	1.225e4	1.088	0.127	4.41	89.2	*	90.7
11	11	13C8-PFOS	507 > 79.9	1.758e3	2.066e3	1.142	0.127	4.82	73.3	**	74.5
12	12	13C5-PFNA	468.2 > 422.9	1.129e4	1.568e4	1.008	0.127	4.77	70.2		71.4
13	13	13C5-PFHxA	318.0 > 272.9	1.353e4	1.353e4	1.000	0.127	3.46	98.4		100
14	14	13C3-PFHxS	401.9 > 79.9	4.200e3	4.200e3	1.000	0.127	4.10	98.4		100
15	15	13C8-PFOA	421.3 > 376	1.225e4	1.225e4	1.000	0.127	4.41	98.4		100
16	16	13C4-PFOS	503 > 79.9	2.066e3	2.066e3	1.000	0.127	4.82	98.4		100
17	17	13C9-PFNA	472.2 > 426.9	1.568e4	1.568e4	1.000	0.127	4.77	98.4		100
18	18	Total PFBS	299 > 79.7		4.354e3		0.127		840		
19	19	Total PFHxS	398.9 > 79.6		1.952e3		0.127		8180		
20	20	Total PFOA	413 > 368.7		1.208e4		0.127		3620		
21	21	Total PFOS	499 > 79.9		1.758e3		0.127		48100		

*SEE 1:20 DILUTION
**SEE 1:25 DILUTION

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_19.qld

Last Altered: Wednesday, June 29, 2016 13:13:49 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 13:14:28 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.12	32629.449	4353.679	823.3
2	18	Total PFBS	299 > 79.7	3.01	608.900	4353.679	16.9

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	19	Total PFHxS	398.9 > 79.6	3.89	179.271	1952.498	12.7
2	3	PFHxS	398.9 > 79.6	4.10	151965.906	1952.498	5890.8
3	19	Total PFHxS	398.9 > 79.6	4.00	42362.344	1952.498	2275.0

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.41	295986.906	12079.342	3234.4
2	20	Total PFOA	413 > 368.7	4.30	35234.457	12079.342	384.0
3	20	Total PFOA	413 > 368.7	4.18	529.499	12079.342	5.8

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	381435.781	1758.019	26940.3
2	21	Total PFOS	499 >79.9	4.71	242734.438	1758.019	19413.8
3	21	Total PFOS	499 >79.9	4.60	15391.639	1758.019	1784.4

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

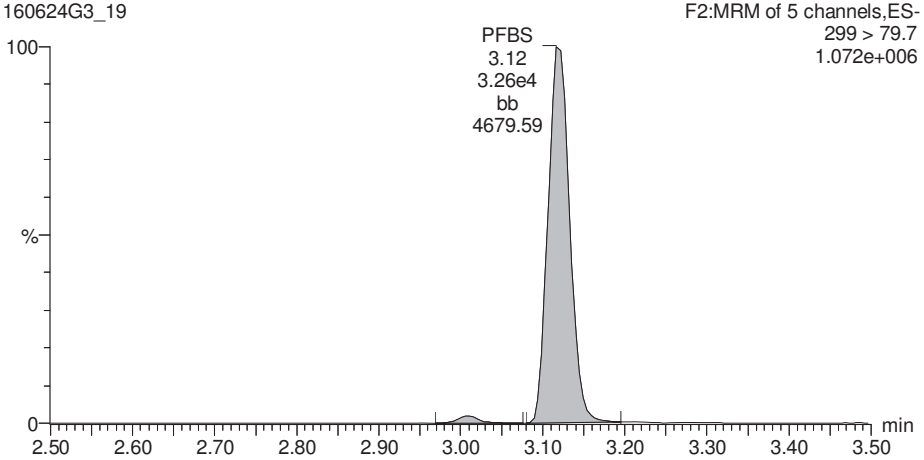
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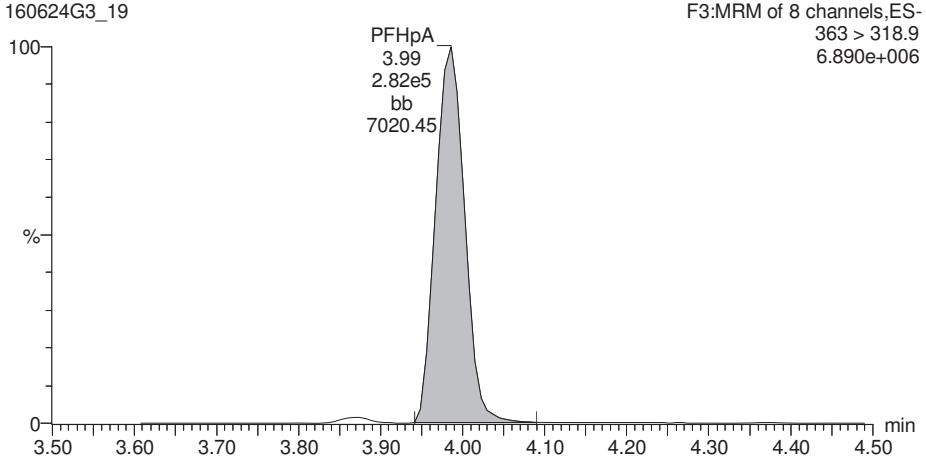
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ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22, Instrument: , Lab: , User:

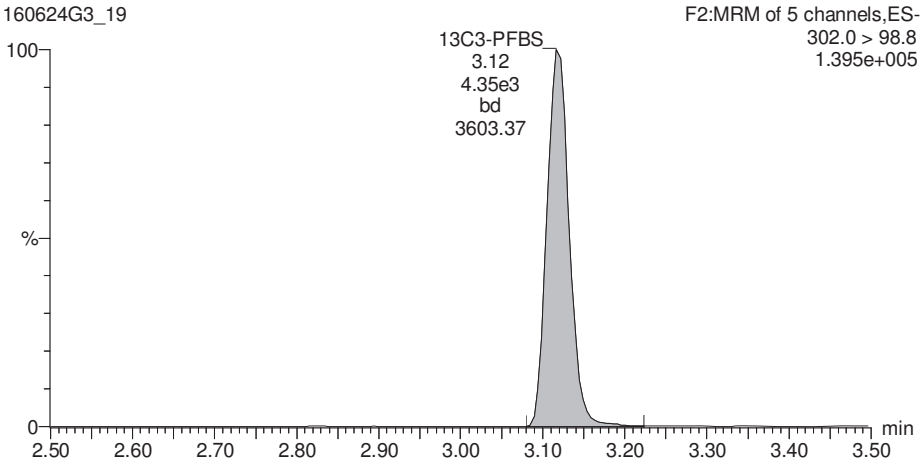
Total PFBS



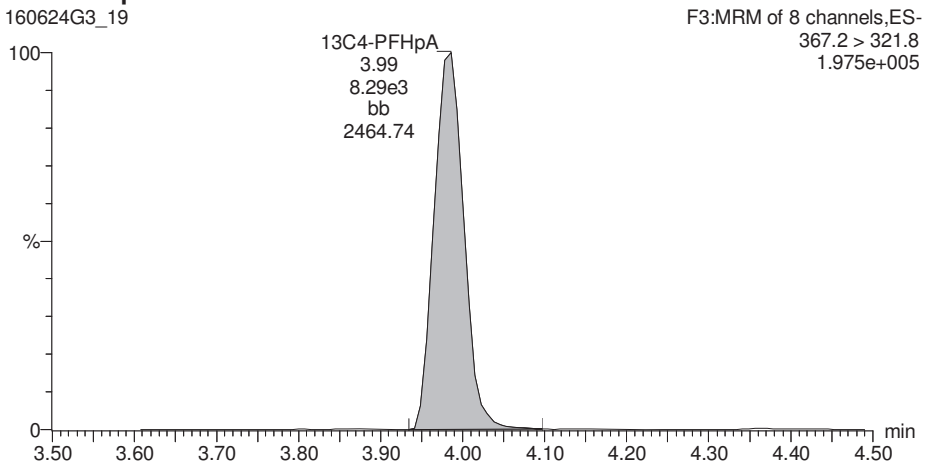
PFHpA



13C3-PFBS



13C4-PFHpA



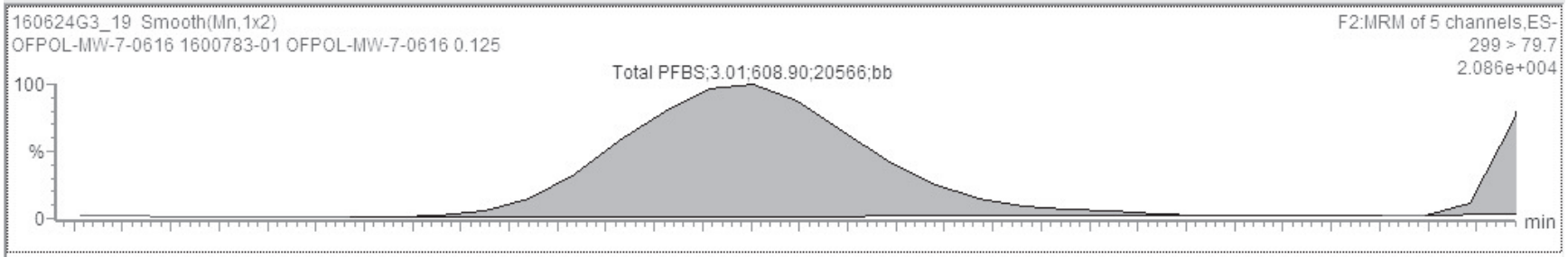
Reviewed: WJL 6/30/16 BR 6/29/16

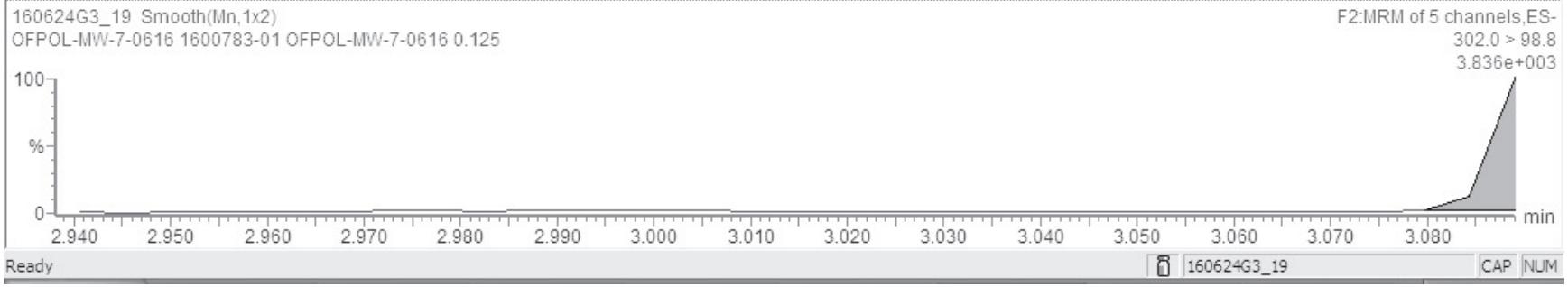
TargetLynx - 160624G3_19.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_19 - 1600783-01 OFPOL-MW-7-0616 0.125 - OFPOL-MW-7-0616

	#...	Name	Trace	Area	RRF	Wt/VoL	RT	RRT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
7	7	13C3-PFBS	302.0 > 98.8	4.35e3	0.236	0.1271	3.12	0.71	134	136.3	0.0995328	4.03	
8	8	13C4-PFH...	367.2 > 321.8	8.29e3	0.923	0.1271	3.99	0.90	65.4	66.4	0.0527176	4.79	
9	9	18O2-PF...	403 > 102.6	1.95e3	0.471	0.1271	4.10	0.93	97.1	98.7	0.1139569	5.13	
10	10	13C2-PFOA	414.9 > 369.7	1.18e4	1.09	0.1271	4.41	1.00	87.3	88.7	0.0398935	3.03	
11	11	13C8-PFOS	507 > 79.9	1.71e3	1.14	0.1271	4.82	1.00	71.2	72.4	0.0000000	3.69	
12	12	13C5-PFNA	468.2 > 422.9	1.13e4	1.01	0.1271	4.77	1.00	70.2	71.4	0.1190279	2.51	
13	13	13C5-PFH...	318.0 > 272.9	1.35e4	1.00	0.1271	3.46	0.00	98.4	100.0	0.0772417	0.000	
14	14	13C3-PFH...	401.9 > 79.9	4.20e3	1.00	0.1271	4.10	0.00	98.4	100.0	0.2138471	0.000	
15	15	13C8-PFOA	421.3 > 376	1.23e4	1.00	0.1271	4.41	0.00	98.4	100.0	0.0308516	0.000	
16	16	13C4-PFOS	503 > 79.9	2.07e3	1.00	0.1271	4.82	0.00	98.4	100.0	0.1663803	0.000	
17	17	13C9-PFNA	472.2 > 426.9	1.57e4	1.00	0.1271	4.77	0.00	98.4	100.0	0.1083759	0.000	
18	18	Total PFBS	299 > 79.7	3.32e4		0.1271			840				0.0000
19	19	Total PFH...	398.9 > 79.6	1.95e5		0.1271			8180				0.0000
20	20	Total PFOA	413 > 368.7	3.26e5		0.1271			3640				0.0000
21	21	Total PFOS	499 > 79.9	6.11e5		0.1271			46600				0.0000





Ready 160624G3_19 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

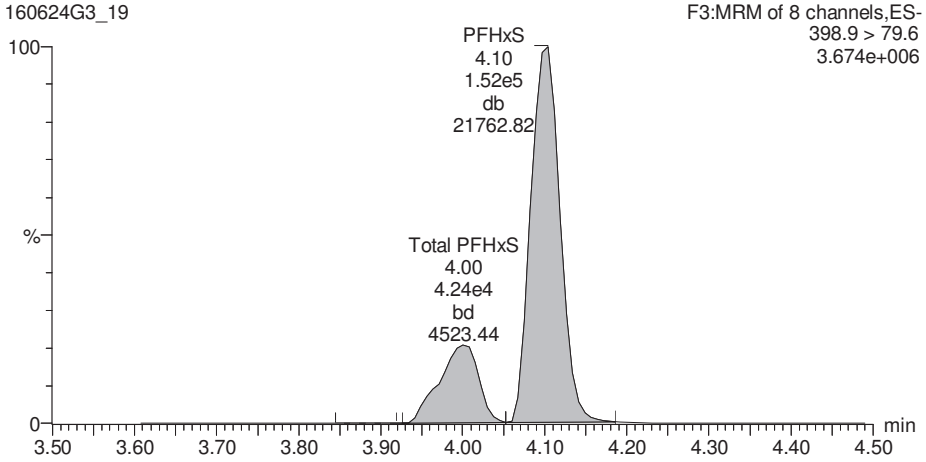
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_19.qld

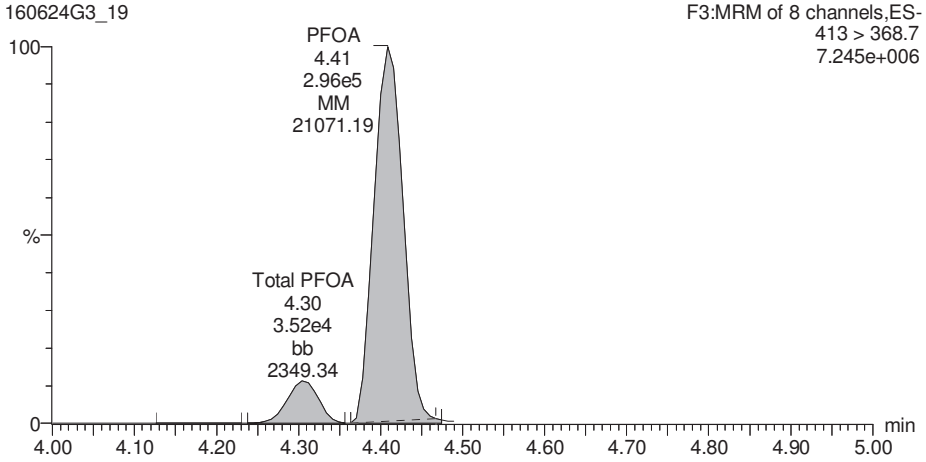
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Printed: Wednesday, June 29, 2016 13:14:28 Pacific Daylight Time

ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22, Instrument: , Lab: , User:

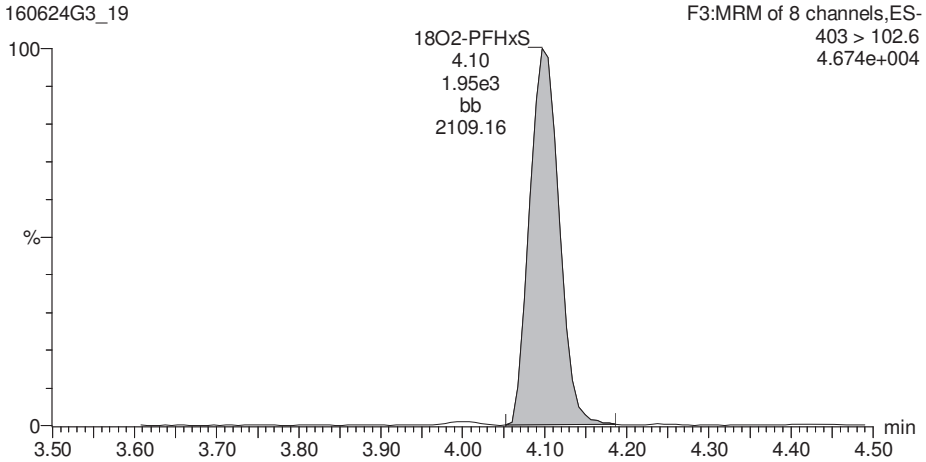
Total PFHxS



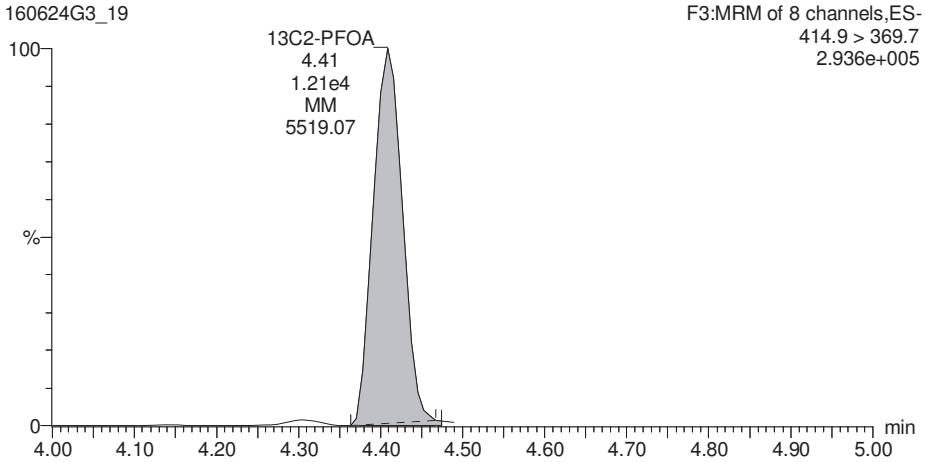
Total PFOA



18O2-PFHxS



13C2-PFOA



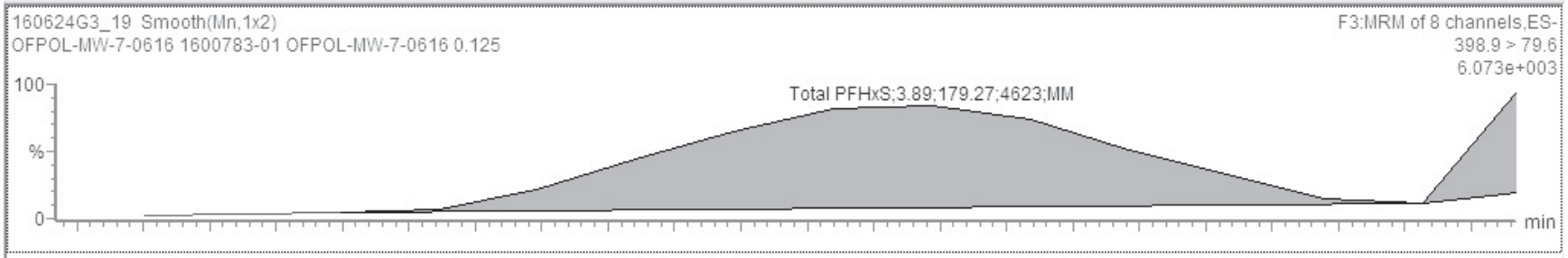
Reviewed: WJL 6/30/16 BR 6/29/16

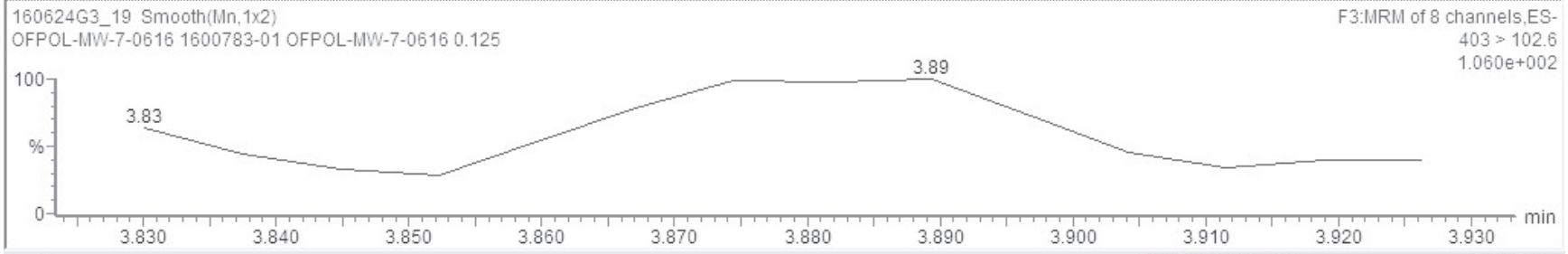
TargetLynx - 160624G3_19.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_19 - 1600783-01 OFPOL-MW-7-0616 0.125 - OFPOL-MW-7-0616

	#...	Name	Trace	Area	RRF	Wt/VoL	RT	RRT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
7	7	13C3-PFBS	302.0 > 98.8	4.35e3	0.236	0.1271	3.12	0.71	134	136.3	0.0995328	4.03	
8	8	13C4-PFH...	367.2 > 321.8	8.29e3	0.923	0.1271	3.99	0.90	65.4	66.4	0.0527176	4.79	
9	9	18O2-PF...	403 > 102.6	1.95e3	0.471	0.1271	4.10	0.93	97.1	98.7	0.1139569	5.13	
10	10	13C2-PFOA	414.9 > 369.7	1.18e4	1.09	0.1271	4.41	1.00	87.3	88.7	0.0398935	3.03	
11	11	13C8-PFOS	507 > 79.9	1.71e3	1.14	0.1271	4.82	1.00	71.2	72.4	0.0000000	3.69	
12	12	13C5-PFNA	468.2 > 422.9	1.13e4	1.01	0.1271	4.77	1.00	70.2	71.4	0.1190279	2.51	
13	13	13C5-PFH...	318.0 > 272.9	1.35e4	1.00	0.1271	3.46	0.00	98.4	100.0	0.0772417	0.000	
14	14	13C3-PFH...	401.9 > 79.9	4.20e3	1.00	0.1271	4.10	0.00	98.4	100.0	0.2138471	0.000	
15	15	13C8-PFOA	421.3 > 376	1.23e4	1.00	0.1271	4.41	0.00	98.4	100.0	0.0308516	0.000	
16	16	13C4-PFOS	503 > 79.9	2.07e3	1.00	0.1271	4.82	0.00	98.4	100.0	0.1663803	0.000	
17	17	13C9-PFNA	472.2 > 426.9	1.57e4	1.00	0.1271	4.77	0.00	98.4	100.0	0.1083759	0.000	
18	18	Total PFBS	299 > 79.7	3.32e4		0.1271			840				0.0000
19	19	Total PFH...	398.9 > 79.6	1.95e5		0.1271			8180				0.0000
20	20	Total PFOA	413 > 368.7	3.26e5		0.1271			3640				0.0000
21	21	Total PFOS	499 > 79.9	6.11e5		0.1271			46600				0.0000





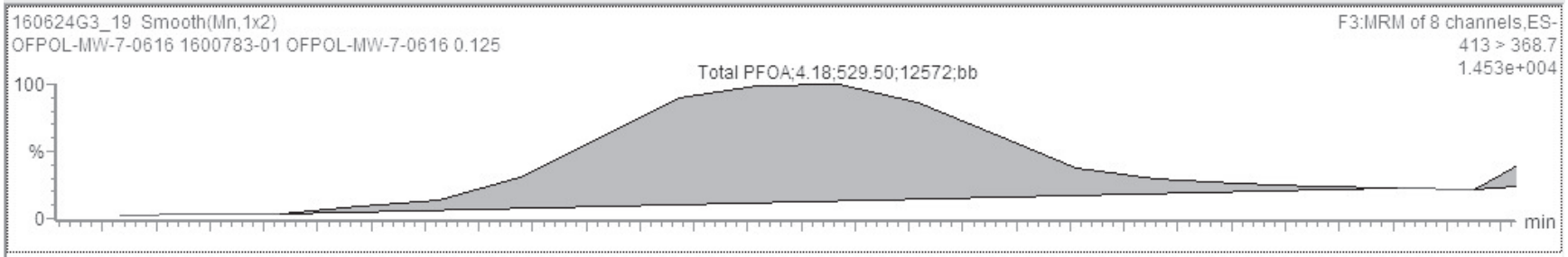
Ready 160624G3_19 CAP NUM

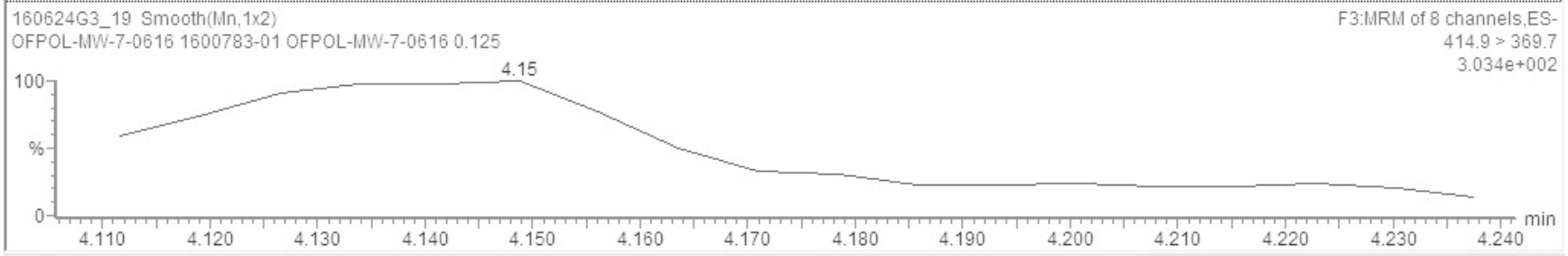
TargetLynx - 160624G3_19.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_19 - 1600783-01 OFPOL-MW-7-0616 0.125 - OFPOL-MW-7-0616

	#...	Name	Trace	Area	RRF	Wt/VoL	RT	RRT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
7	7	13C3-PFBS	302.0 > 98.8	4.35e3	0.236	0.1271	3.12	0.71	134	136.3	0.0995328	4.03	
8	8	13C4-PFH...	367.2 > 321.8	8.29e3	0.923	0.1271	3.99	0.90	65.4	66.4	0.0527176	4.79	
9	9	18O2-PF...	403 > 102.6	1.95e3	0.471	0.1271	4.10	0.93	97.1	98.7	0.1139569	5.13	
10	10	13C2-PFOA	414.9 > 369.7	1.21e4	1.09	0.1271	4.41	1.00	89.2	90.7	0.0398935	3.03	
11	11	13C8-PFOS	507 > 79.9	1.71e3	1.14	0.1271	4.82	1.00	71.2	72.4	0.0000000	3.69	
12	12	13C5-PFNA	468.2 > 422.9	1.13e4	1.01	0.1271	4.77	1.00	70.2	71.4	0.1190279	2.51	
13	13	13C5-PFH...	318.0 > 272.9	1.35e4	1.00	0.1271	3.46	0.00	98.4	100.0	0.0772417	0.000	
14	14	13C3-PFH...	401.9 > 79.9	4.20e3	1.00	0.1271	4.10	0.00	98.4	100.0	0.2138471	0.000	
15	15	13C8-PFOA	421.3 > 376	1.23e4	1.00	0.1271	4.41	0.00	98.4	100.0	0.0308516	0.000	
16	16	13C4-PFOS	503 > 79.9	2.07e3	1.00	0.1271	4.82	0.00	98.4	100.0	0.1663803	0.000	
17	17	13C9-PFNA	472.2 > 426.9	1.57e4	1.00	0.1271	4.77	0.00	98.4	100.0	0.1083759	0.000	
18	18	Total PFBS	299 > 79.7	3.32e4		0.1271			840				0.0000
19	19	Total PFH...	398.9 > 79.6	1.95e5		0.1271			8180				0.0000
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Ready 160624G3_19 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

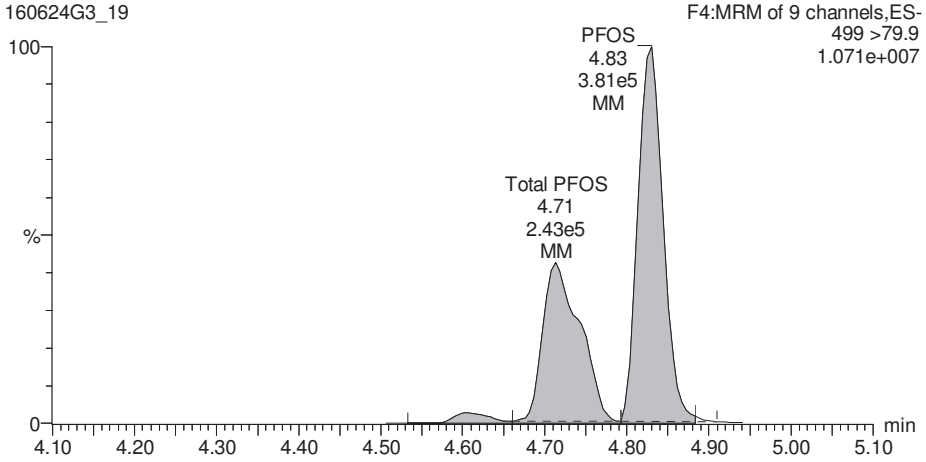
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_19.qld

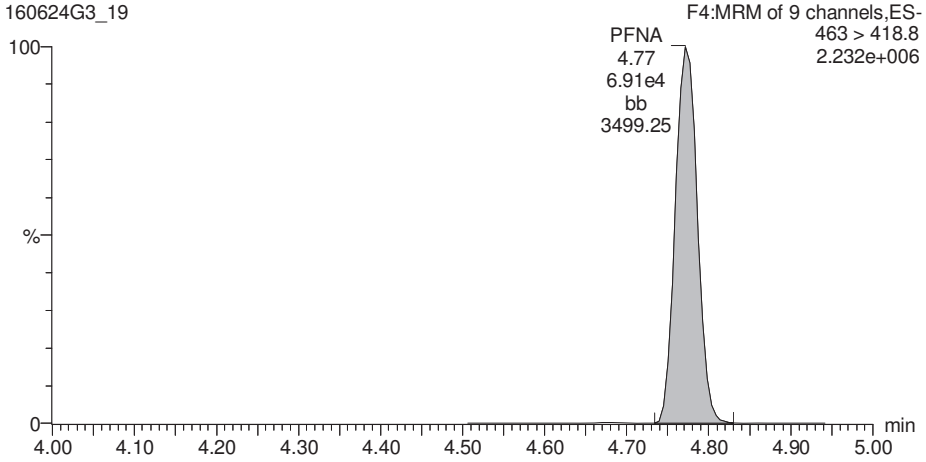
Last Altered: Wednesday, June 29, 2016 13:13:49 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 13:14:28 Pacific Daylight Time

ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22, Instrument: , Lab: , User:

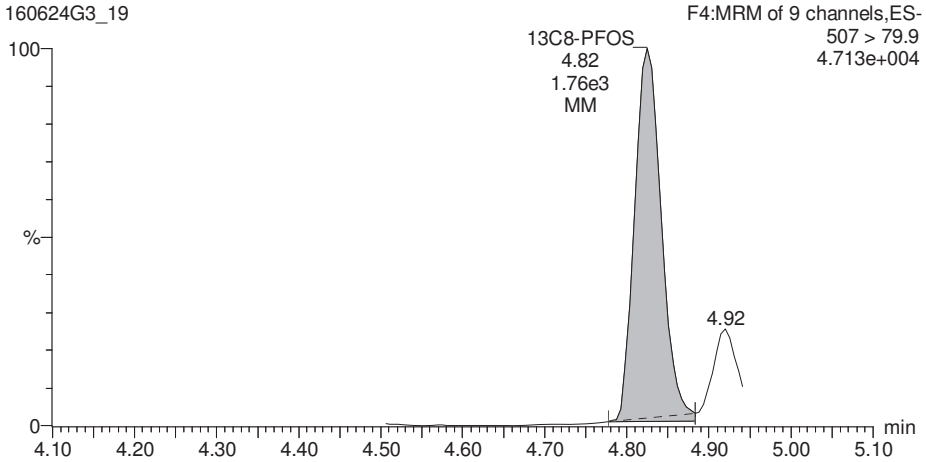
Total PFOS



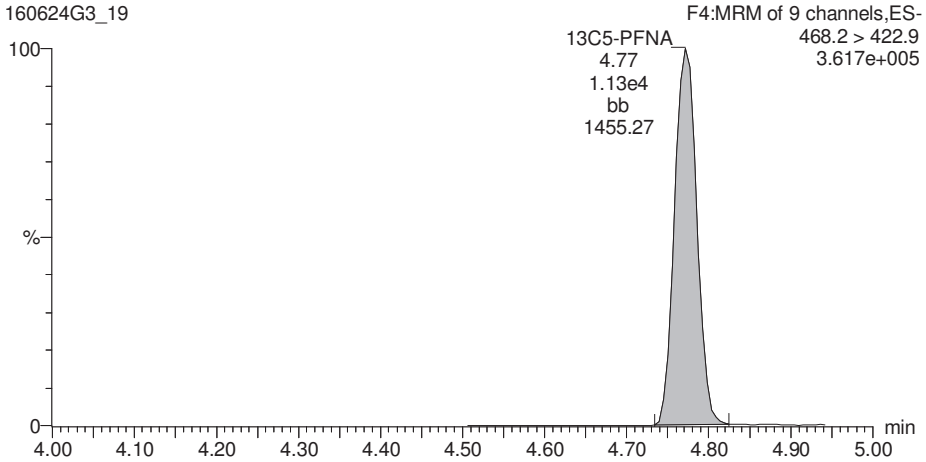
PFNA



13C8-PFOS



13C5-PFNA



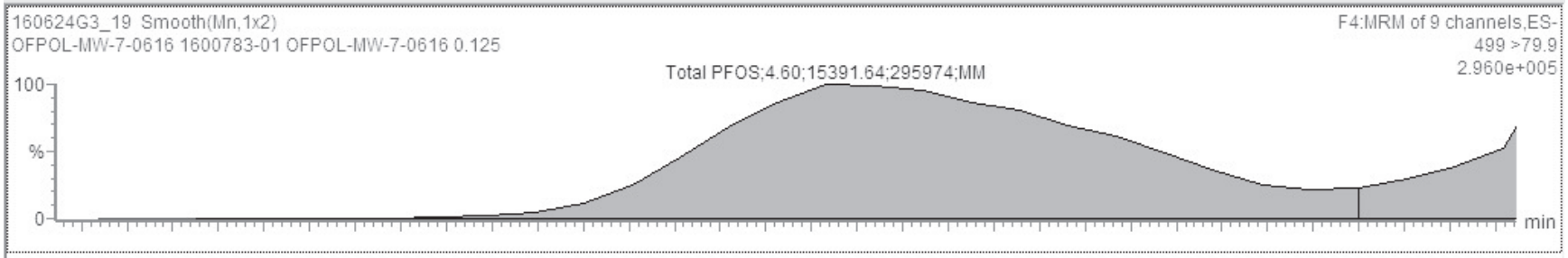
Reviewed: WJL 6/30/16 BR 6/29/16

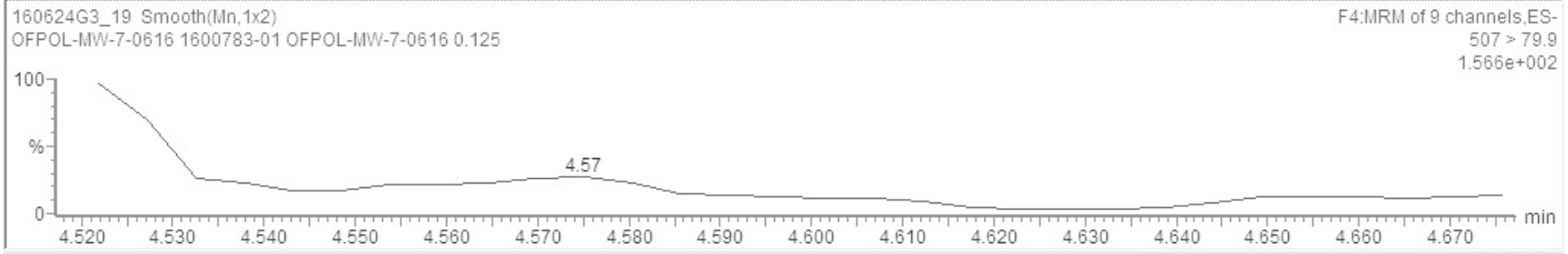
TargetLynx - 160624G3_19.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_19 - 1600783-01 OFPOL-MW-7-0616 0.125 - OFPOL-MW-7-0616

	#...	Name	Trace	Area	RRF	Wt/VoL	RT	RRT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
7	7	13C3-PFBS	302.0 > 98.8	4.35e3	0.236	0.1271	3.12	0.71	134	136.3	0.0995328	4.03	
8	8	13C4-PFH...	367.2 > 321.8	8.29e3	0.923	0.1271	3.99	0.90	65.4	66.4	0.0527176	4.79	
9	9	18O2-PF...	403 > 102.6	1.95e3	0.471	0.1271	4.10	0.93	97.1	98.7	0.1139569	5.13	
10	10	13C2-PFOA	414.9 > 369.7	1.21e4	1.09	0.1271	4.41	1.00	89.2	90.7	0.0398935	3.03	
11	11	13C8-PFOS	507 > 79.9	1.76e3	1.14	0.1271	4.82	1.00	73.3	74.5	0.0000000	3.69	
12	12	13C5-PFNA	468.2 > 422.9	1.13e4	1.01	0.1271	4.77	1.00	70.2	71.4	0.1190279	2.51	
13	13	13C5-PFH...	318.0 > 272.9	1.35e4	1.00	0.1271	3.46	0.00	98.4	100.0	0.0772417	0.000	
14	14	13C3-PFH...	401.9 > 79.9	4.20e3	1.00	0.1271	4.10	0.00	98.4	100.0	0.2138471	0.000	
15	15	13C8-PFOA	421.3 > 376	1.23e4	1.00	0.1271	4.41	0.00	98.4	100.0	0.0308516	0.000	
16	16	13C4-PFOS	503 > 79.9	2.07e3	1.00	0.1271	4.82	0.00	98.4	100.0	0.1663803	0.000	
17	17	13C9-PFNA	472.2 > 426.9	1.57e4	1.00	0.1271	4.77	0.00	98.4	100.0	0.1083759	0.000	
18	18	Total PFBS	299 > 79.7	3.32e4		0.1271			840				0.0000
19	19	Total PFH...	398.9 > 79.6	1.95e5		0.1271			8180				0.0000
20	20	Total PFOA	413 > 368.7	3.32e5		0.1271			3620				0.0000
21	21	Total PFOS	499 > 79.9	6.40e5		0.1271			48100				0.0000





Ready 160624G3_19 CAP NUM

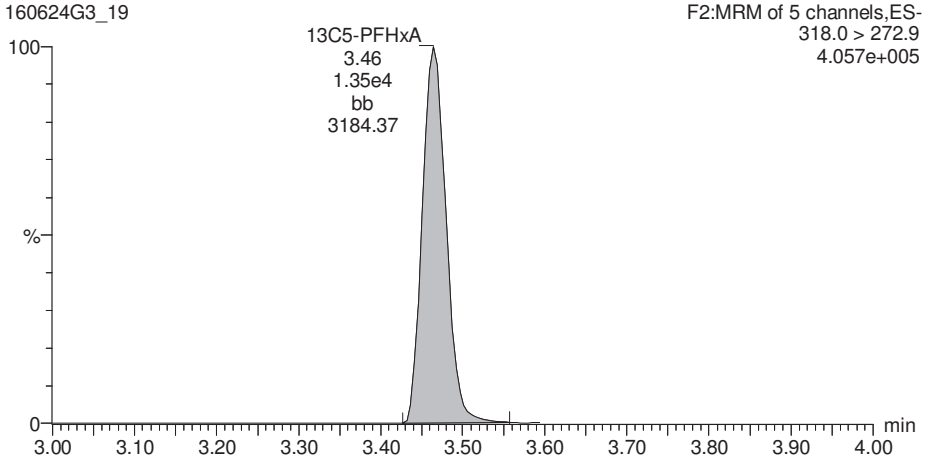
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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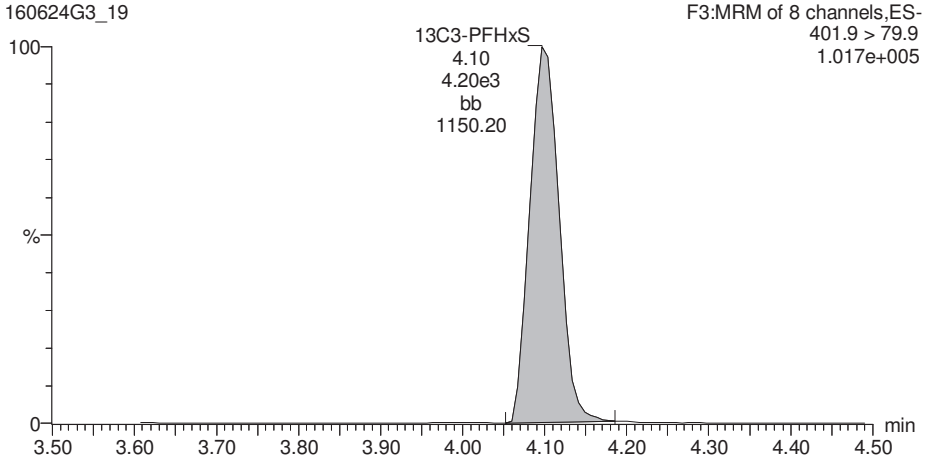
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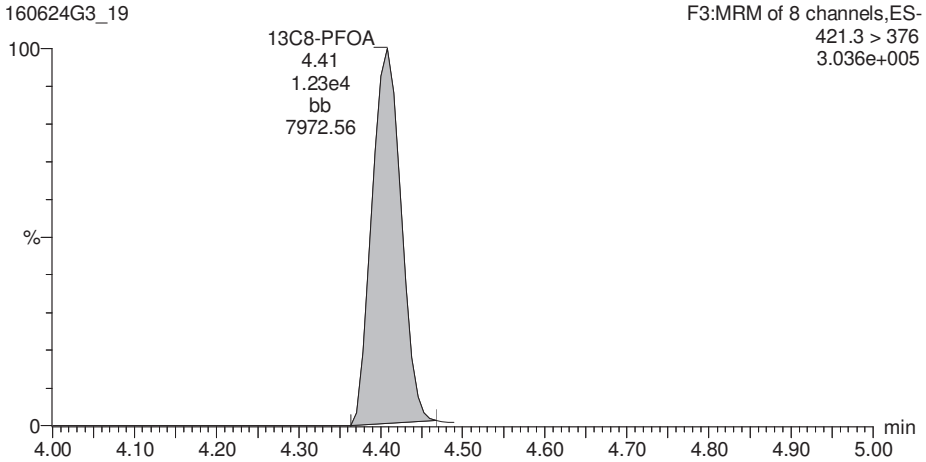
13C5-PFHxA



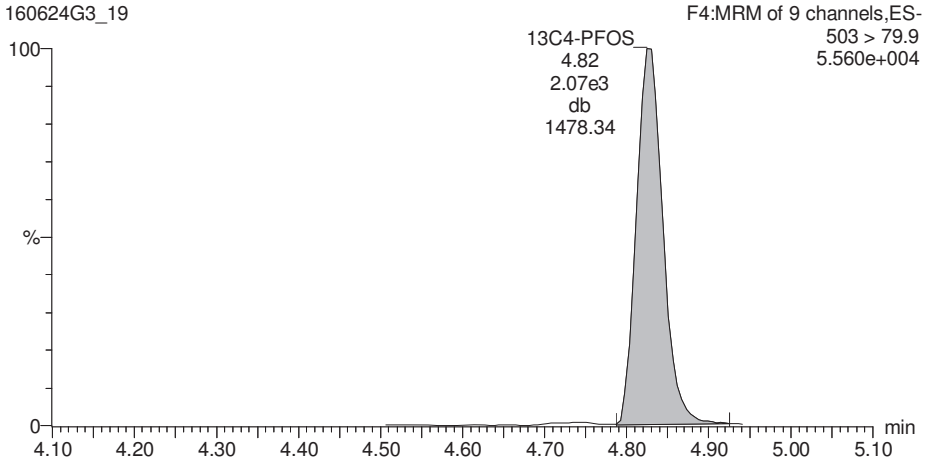
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/29/16

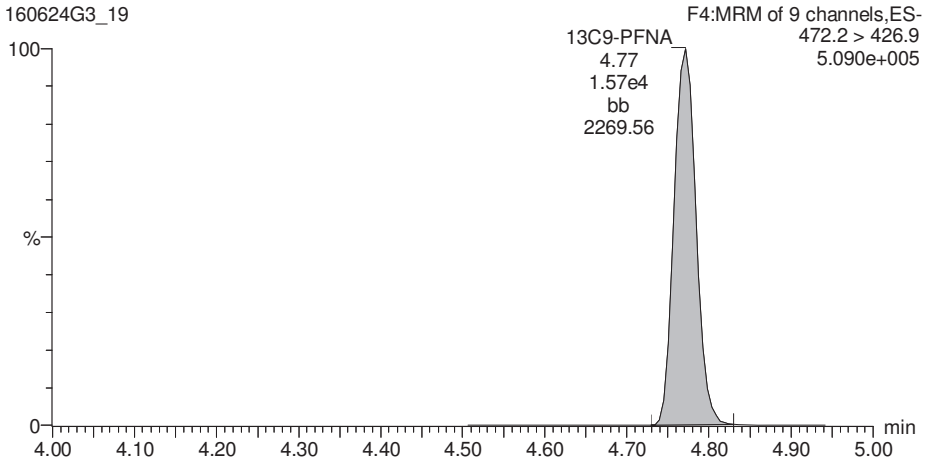
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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ID: 1600783-01 OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160624G3_19, Date: 25-Jun-2016, Time: 04:25:22, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_53.qld

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	2	PFHpA	318.9	3.522e3	6.201e2		0.127	4.36	2.99	
2	3	PFHxS	79.91	4.443e3	8.200e1		0.127	4.48	8.31	
3	4	PFOA	368.9	6.224e3	4.354e2		0.127	4.75	3.32	
4	8	13C4-PFHpA	321.9	6.201e2	7.615e2	1.075	0.127	4.35	0.0745	75.7
5	9	18O2-PFHxS	102.9	8.200e1	3.083e2	0.307	0.127	4.47	0.0852	86.6
6	10	13C2-PFOA	369.9	4.354e2	5.852e2	1.042	0.127	4.75	0.0703	71.4
7	13	13C5-PFHxA	273.0	7.615e2	7.615e2	1.000	0.127	3.88	0.0984	100
8	14	13C3-PFHxS	80.0	3.083e2	3.083e2	1.000	0.127	4.47	0.0984	100
9	15	13C8-PFOA	375.9	5.852e2	5.852e2	1.000	0.127	4.75	0.0984	100
10	16	13C4-PFOS	79.94	1.550e2	1.550e2	1.000	0.127	5.12	0.0984	100
11	17	13C9-PFNA	427.0	2.058e1	2.058e1	1.000	0.127	5.06	0.0984	100
12	19	Total PFHxS	79.91		8.200e1		0.127		9.84	
13	20	Total PFOA	368.9		4.354e2		0.127		3.60	

TARGETED IN UG/L

Reviewed: WJL 6/30/16 BR 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_53.qld

Last Altered: Thursday, June 30, 2016 13:11:10 Pacific Daylight Time
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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	583.597	346.101	0.8
2	18	Total PFBS	79.9	3.34	12.147	346.101	0.0

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.48	4442.657	81.995	8.3
2	19	Total PFHxS	79.91	4.38	808.189	81.995	1.5
3	19	Total PFHxS	79.91	4.27	11.017	81.995	0.0

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	368.9	4.75	6224.129	435.434	3.3
2	20	Total PFOA	368.9	4.66	517.182	435.434	0.3

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	29338.043	128.824	32.8
2	21	Total PFOS	79.92	5.03	10211.884	128.824	11.4
3	21	Total PFOS	79.92	4.93	594.609	128.824	0.7

Reviewed: WJL 6/30/16 BR 6/30/16

Vista Analytical Laboratory Q1

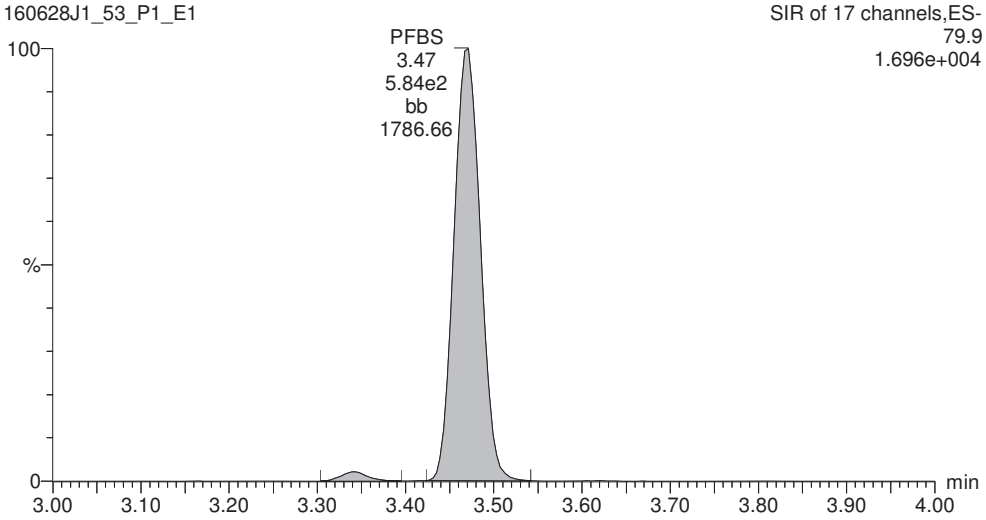
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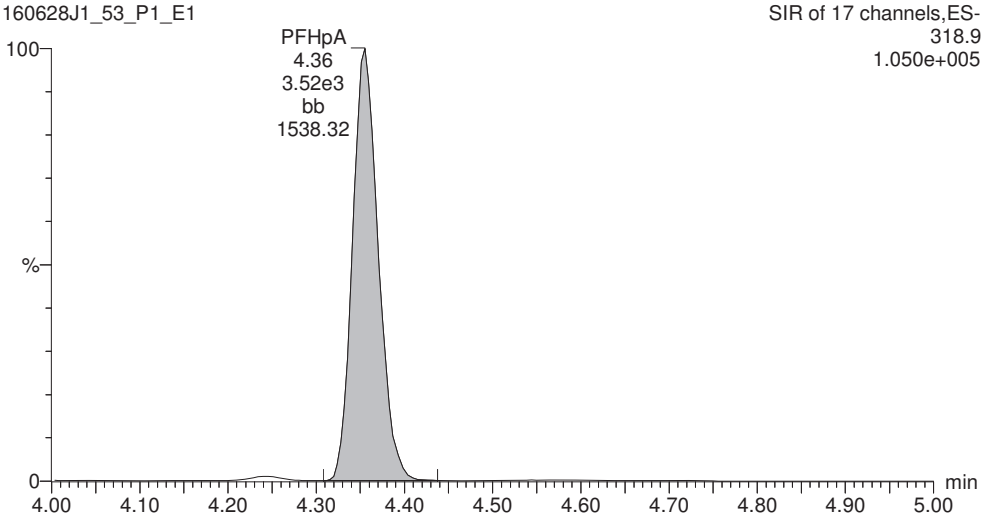
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ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44, Instrument: , Lab: ©PE-SCIEX, User: pwoolley

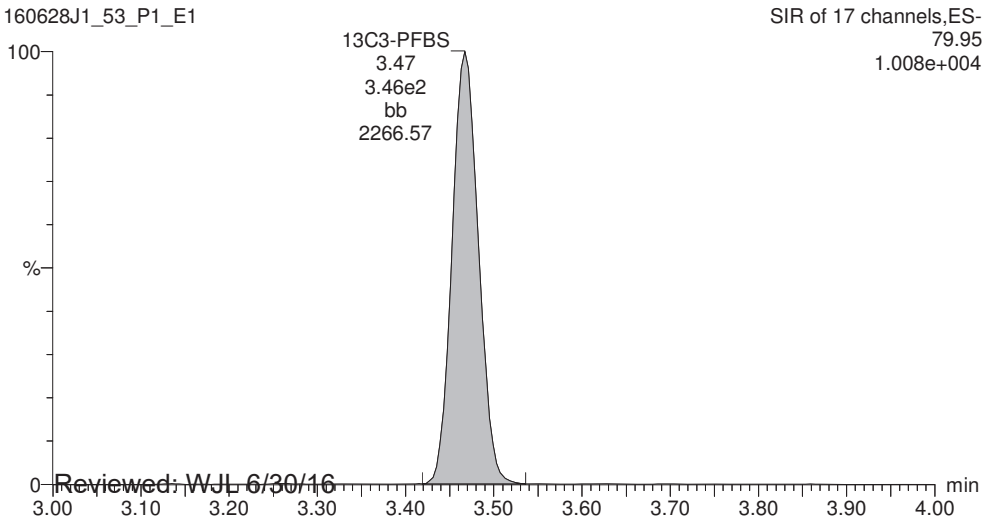
Total PFBS



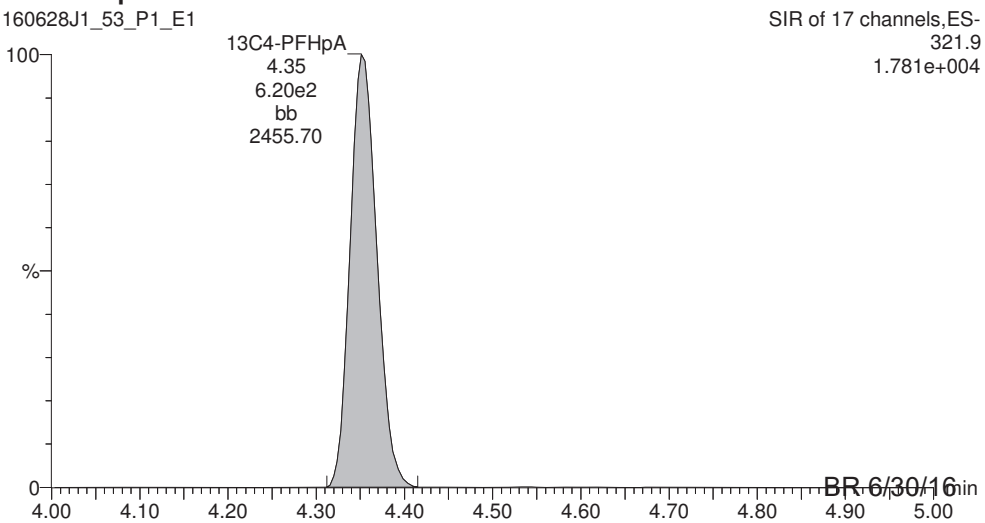
PFHpA



13C3-PFBS



13C4-PFHpA



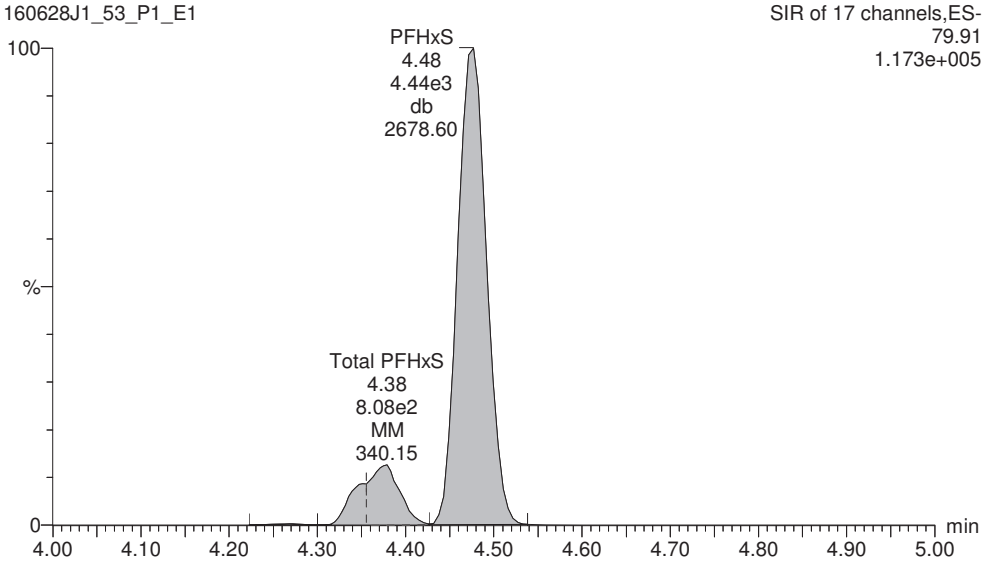
Reviewed: WJL 6/30/16 BR 6/30/16

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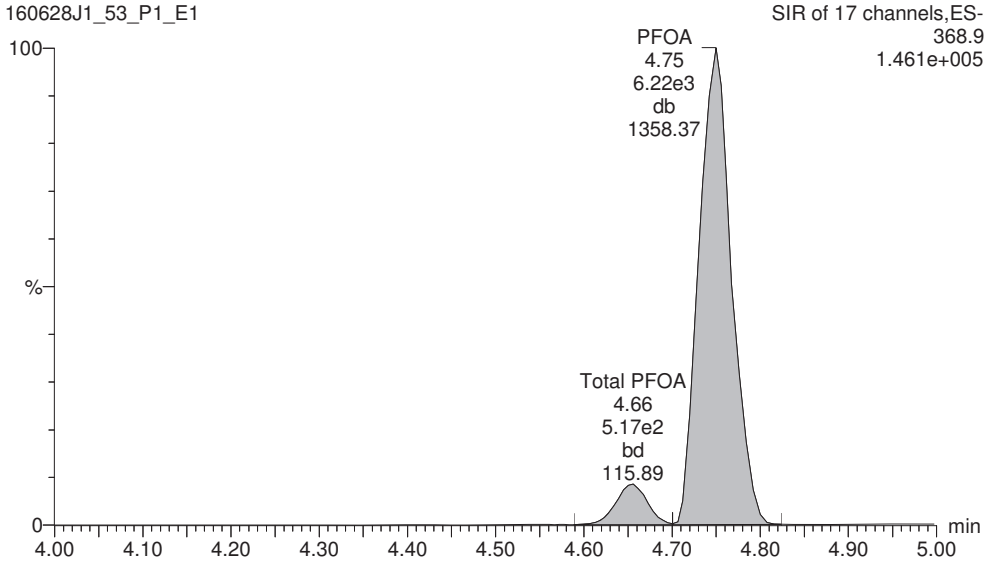
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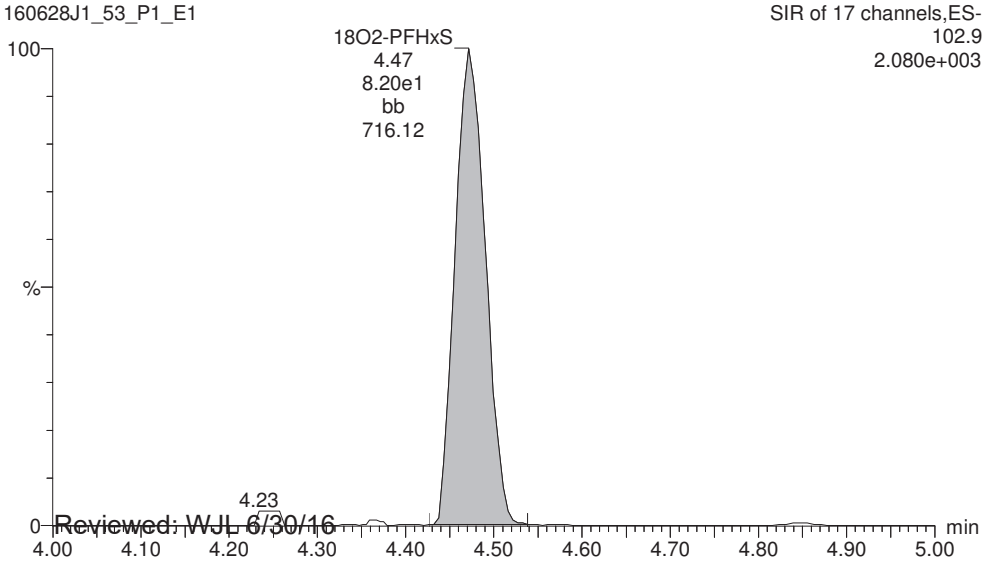
Total PFHxS



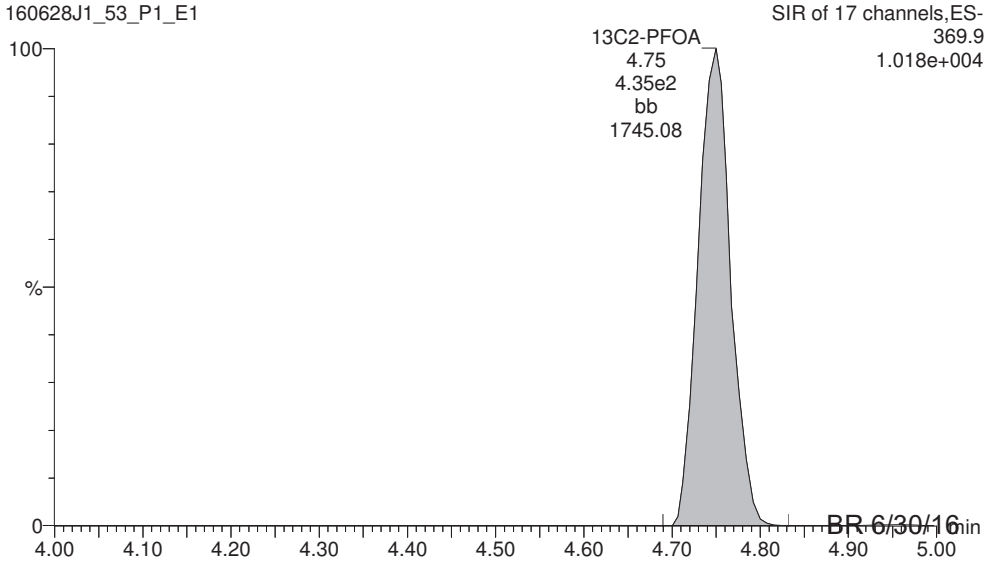
Total PFOA



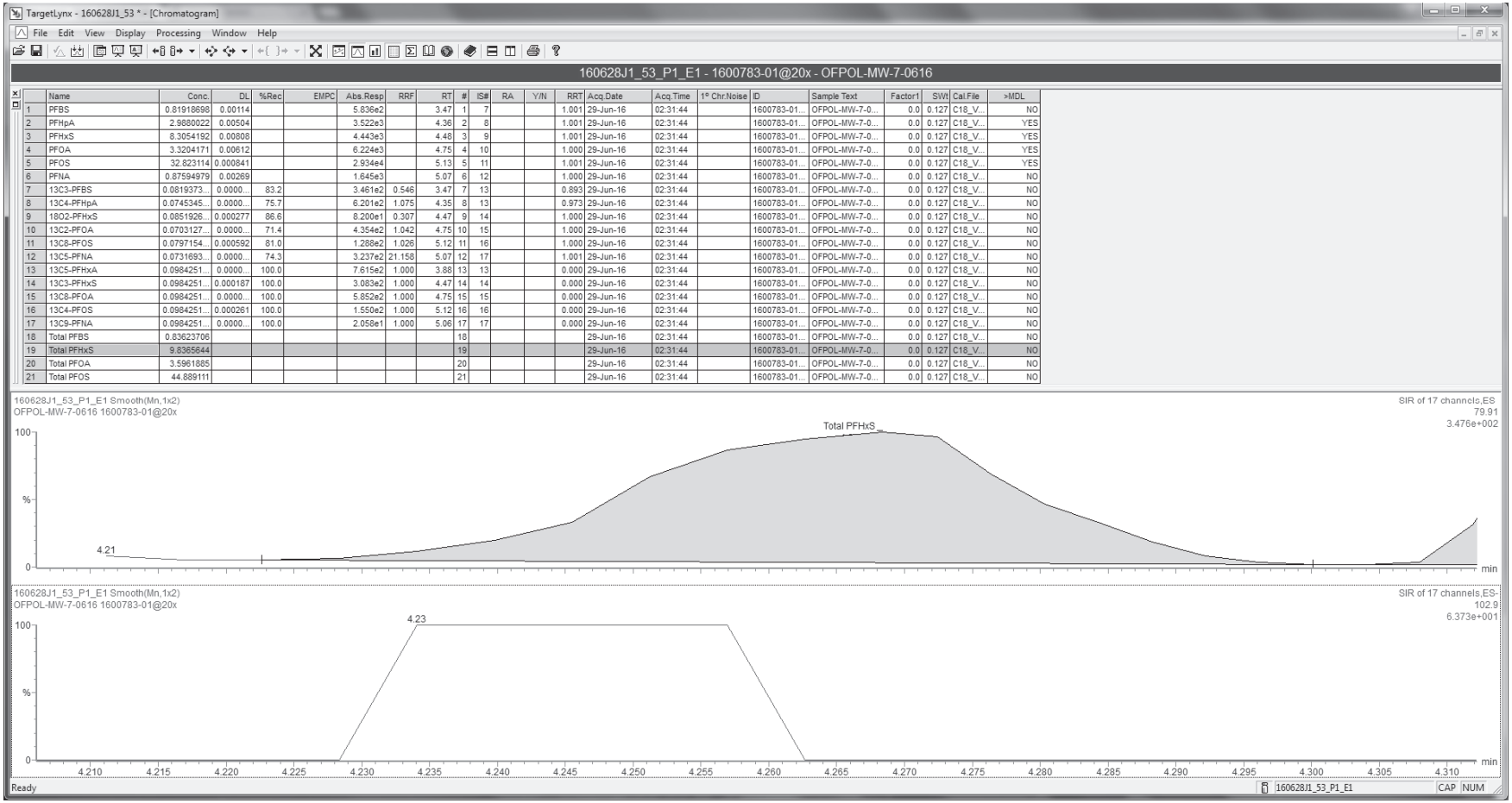
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 BR 6/30/16



	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	SWt	Cal.File	>MDL
1	PFBS	0.81918698	0.00114			5.836e2		3.47	1	7			1.001	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
2	PFHpA	2.9880022	0.00504			3.522e3		4.36	2	8			1.001	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	YES
3	PFHxS	8.3054192	0.00808			4.443e3		4.48	3	9			1.001	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	YES
4	PFOA	3.3204171	0.00612			6.224e3		4.75	4	10			1.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	YES
5	PFOS	32.823114	0.000841			2.934e4		5.13	5	11			1.001	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	YES
6	PFNA	0.87594979	0.00269			1.645e3		5.07	6	12			1.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
7	13C3-PFBS	0.0819373...	0.0000...	83.2		3.461e2	0.546	3.47	7	13			0.893	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
8	13C4-PFHpA	0.0745345...	0.0000...	75.7		6.201e2	1.075	4.35	8	13			0.973	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
9	18O2-PFHxS	0.0851926...	0.000277	86.6		8.200e1	0.307	4.47	9	14			1.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
10	13C2-PFOA	0.0703127...	0.0000...	71.4		4.354e2	1.042	4.75	10	15			1.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
11	13C8-PFOS	0.0797154...	0.000592	81.0		1.288e2	1.026	5.12	11	16			1.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
12	13C5-PFNA	0.0731693...	0.0000...	74.3		3.237e2	21.158	5.07	12	17			1.001	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
13	13C5-PFHxA	0.0984251...	0.0000...	100.0		7.615e2	1.000	3.88	13	13			0.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
14	13C3-PFHxS	0.0984251...	0.000187	100.0		3.083e2	1.000	4.47	14	14			0.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
15	13C8-PFOA	0.0984251...	0.0000...	100.0		5.852e2	1.000	4.75	15	15			0.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
16	13C4-PFOS	0.0984251...	0.000261	100.0		1.550e2	1.000	5.12	16	16			0.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
17	13C9-PFNA	0.0984251...	0.0000...	100.0		2.058e1	1.000	5.06	17	17			0.000	29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
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19	Total PFHxS	9.8365644							19					29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
20	Total PFOA	3.5961885							20					29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO
21	Total PFOS	44.889111							21					29-Jun-16	02:31:44		1600783-01...	OFPOL-MW-7-0...	0.0	0.127	C18_V...	NO

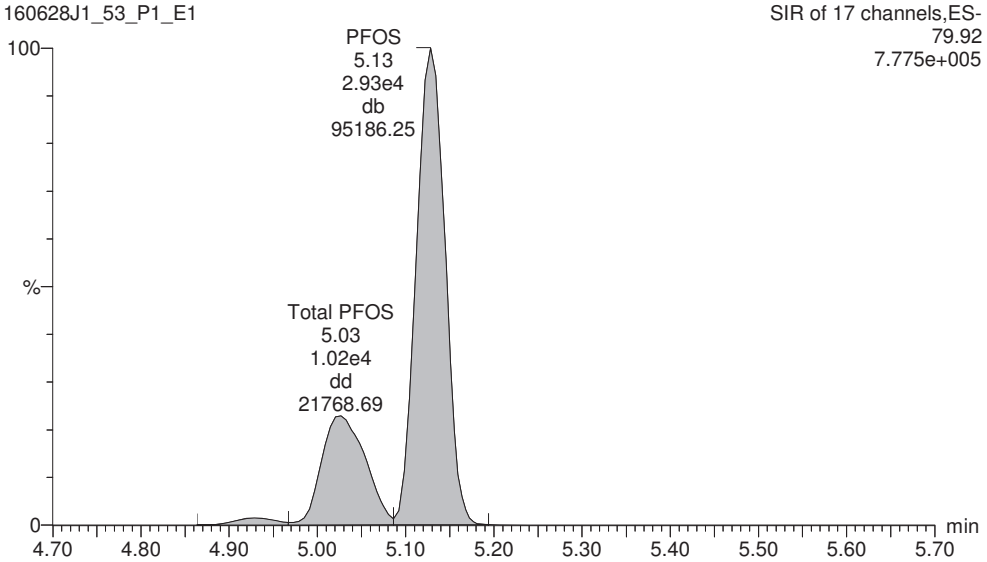
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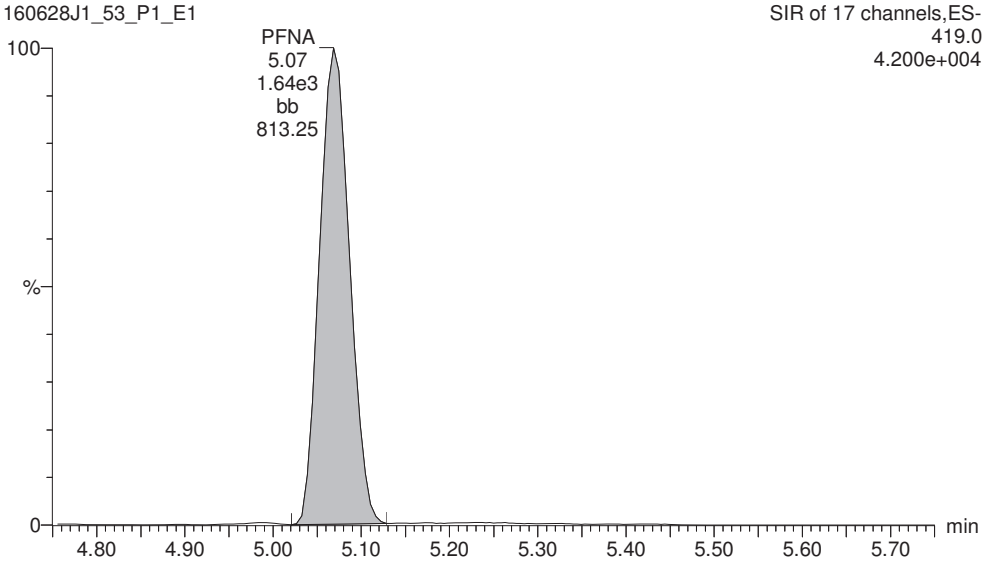
Last Altered: Thursday, June 30, 2016 13:11:10 Pacific Daylight Time
Printed: Thursday, June 30, 2016 13:11:53 Pacific Daylight Time

ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44, Instrument: , Lab: ©PE-SCIEX, User: pwoolley

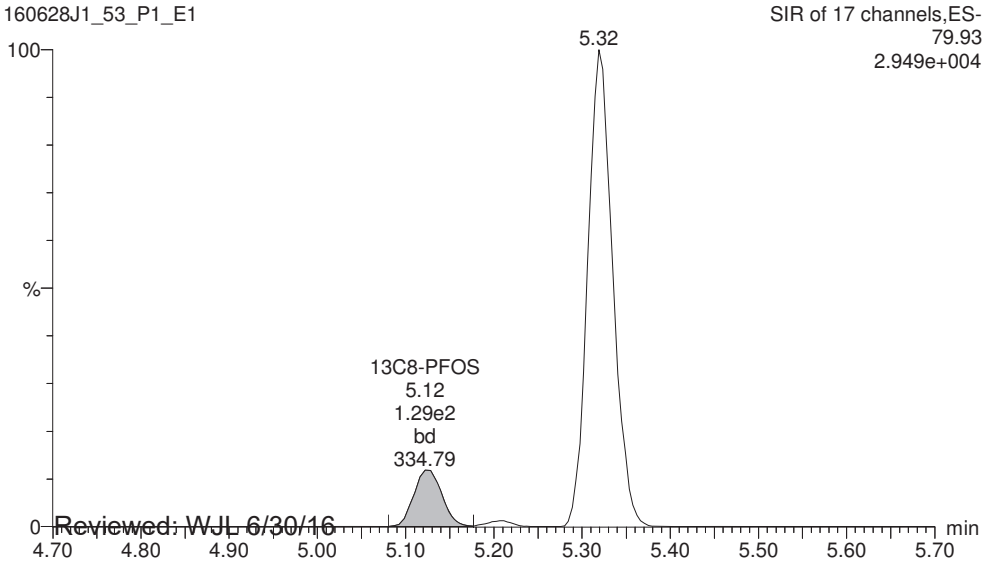
Total PFOS



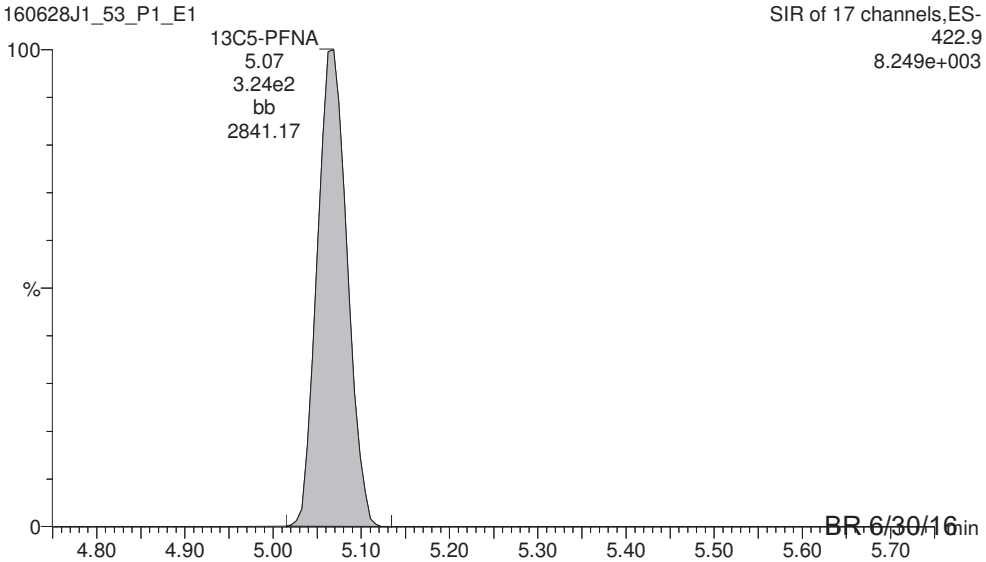
PFNA



13C8-PFOS



13C5-PFNA



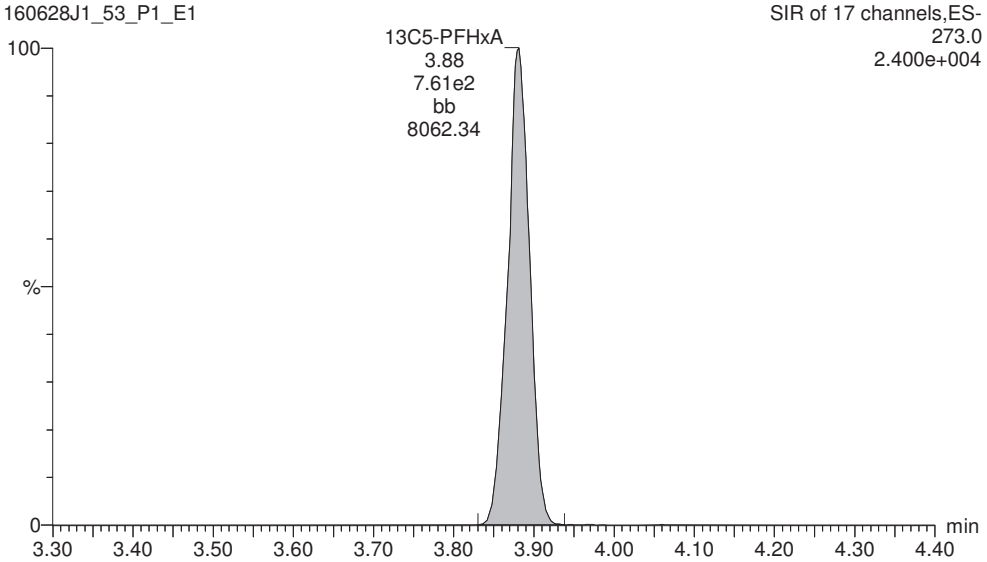
Reviewed: WJL 6/30/16 BR 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_53.qld

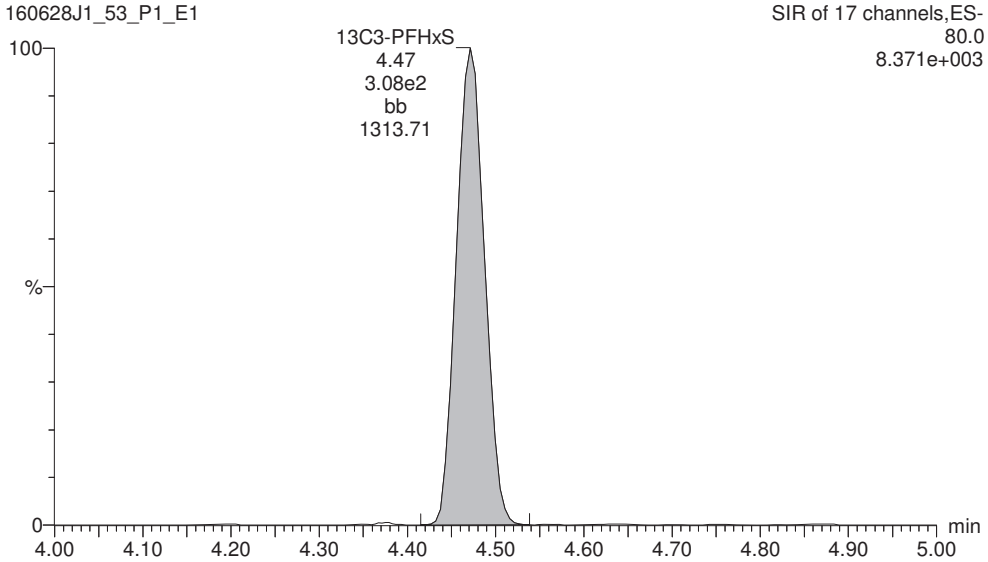
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ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44, Instrument: , Lab: ©PE-SCIEX, User: pwoolley

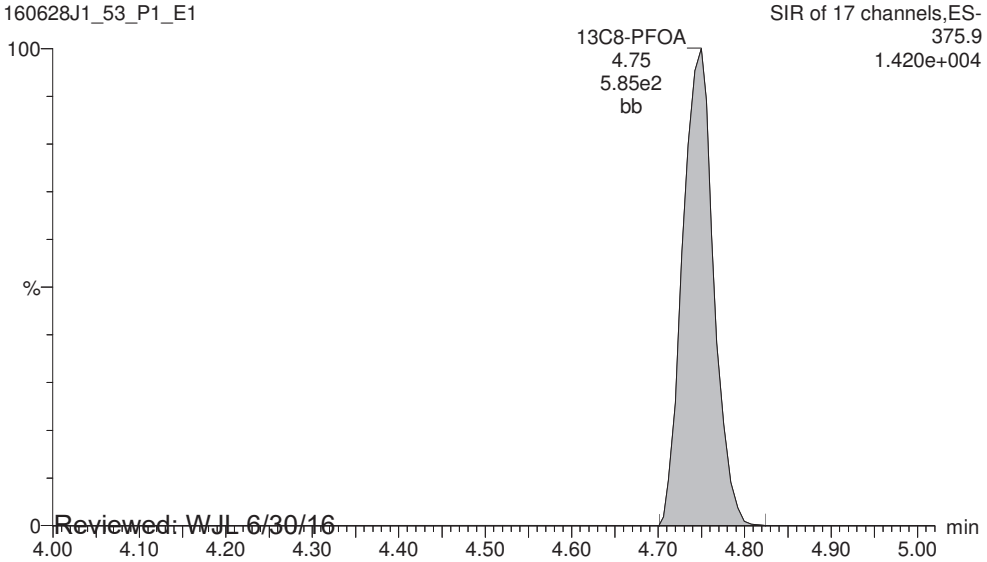
13C5-PFHxA



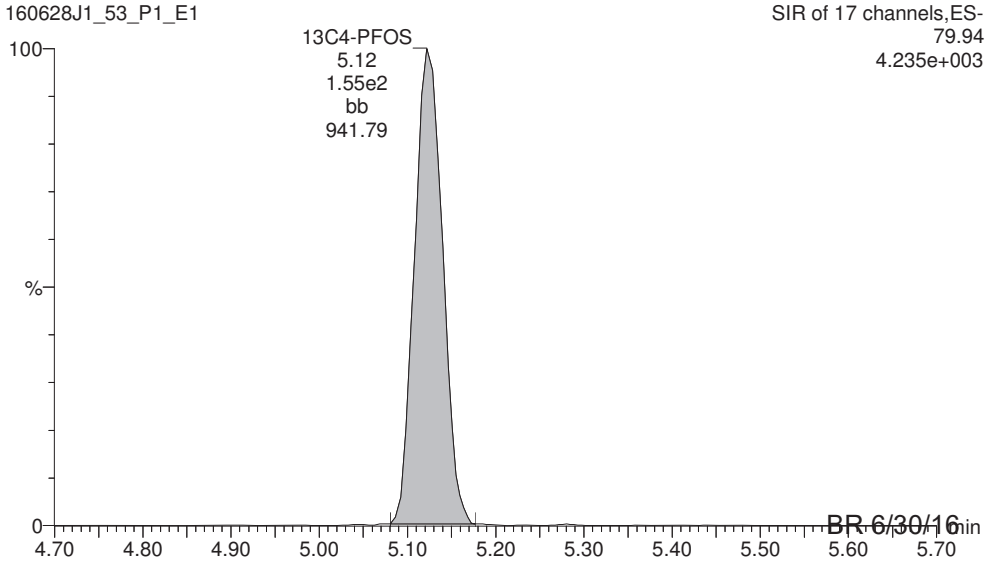
13C3-PFHxS



13C8-PFOA



13C4-PFOS



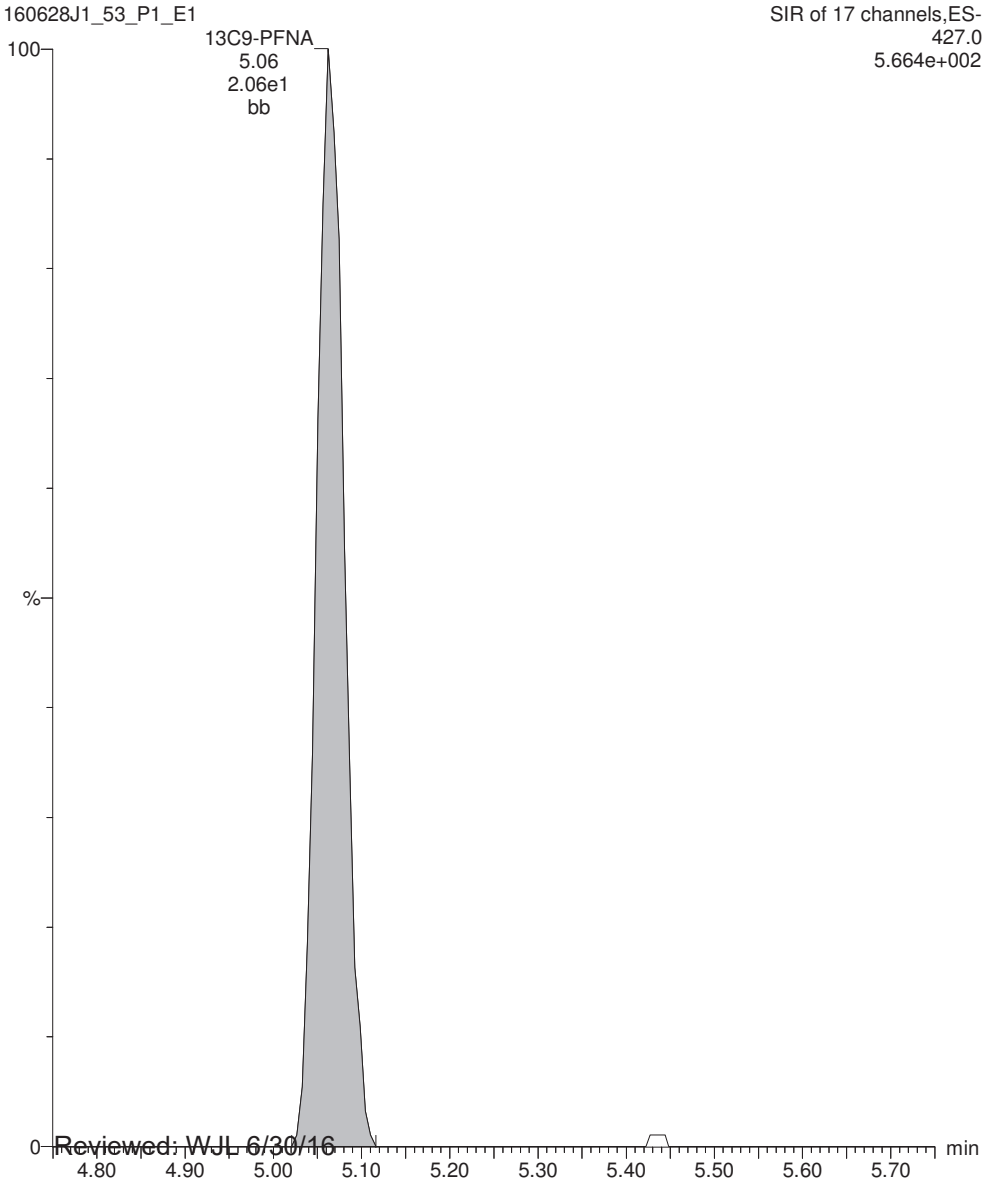
Reviewed: WJL 6/30/16 BR 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_53.qld

Last Altered: Thursday, June 30, 2016 13:11:10 Pacific Daylight Time
Printed: Thursday, June 30, 2016 13:11:53 Pacific Daylight Time

ID: 1600783-01@20x, Description: OFPOL-MW-7-0616, Name: 160628J1_53.wiff, Date: 29-Jun-2016, Time: 02:31:44, Instrument: , Lab: ©PE-SCIEX, User: pwoolley

13C9-PFNA



Reviewed: WJL 6/30/16

BR 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_14.qld

Last Altered: Thursday, June 30, 2016 09:10:15 Pacific Daylight Time
Printed: Thursday, June 30, 2016 09:10:44 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

ID: 1600783-01@25X OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160629G3_14, Date: 30-Jun-2016, Time: 02:56:35

TARGETED IN UG/L

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	5	PFOS	499 >79.9	7.766e3	3.725e1		0.127	4.80	32.4	
2	11	13C8-PFOS	507 > 79.9	3.725e1	4.997e1	1.108	0.127	4.80	0.0662	67.3
3	16	13C4-PFOS	503 > 79.9	4.997e1	4.997e1	1.000	0.127	4.80	0.0984	100
4	21	Total PFOS	499 > 79.9		3.725e1		0.127		49.3	

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_14.qld

Last Altered: Thursday, June 30, 2016 09:10:15 Pacific Daylight Time
Printed: Thursday, June 30, 2016 09:10:44 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

ID: 1600783-01@25X OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160629G3_14, Date: 30-Jun-2016, Time: 02:56:35

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	18	Total PFBS	299 > 79.7	3.52	7.844	274.819	0.0
2	1	PFBS	299 > 79.7	3.09	3316.938	274.819	0.8
3	18	Total PFBS	299 > 79.7	2.98	39.363	274.819	0.0

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	19	Total PFHxS	398.9 > 79.6	4.23	7.775	140.504	0.0
2	3	PFHxS	398.9 > 79.6	4.07	19354.758	140.504	9.4
3	19	Total PFHxS	398.9 > 79.6	3.96	4985.313	140.504	2.4

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.38	19285.160	713.031	3.3
2	20	Total PFOA	413 > 368.7	4.27	1651.772	713.031	0.3

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.80	7766.027	37.254	32.4
2	21	Total PFOS	499 >79.9	4.68	3895.297	37.254	16.2
3	21	Total PFOS	499 >79.9	4.58	175.444	37.254	0.7

Reviewed: WJL 6/30/16

BR 6/30/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

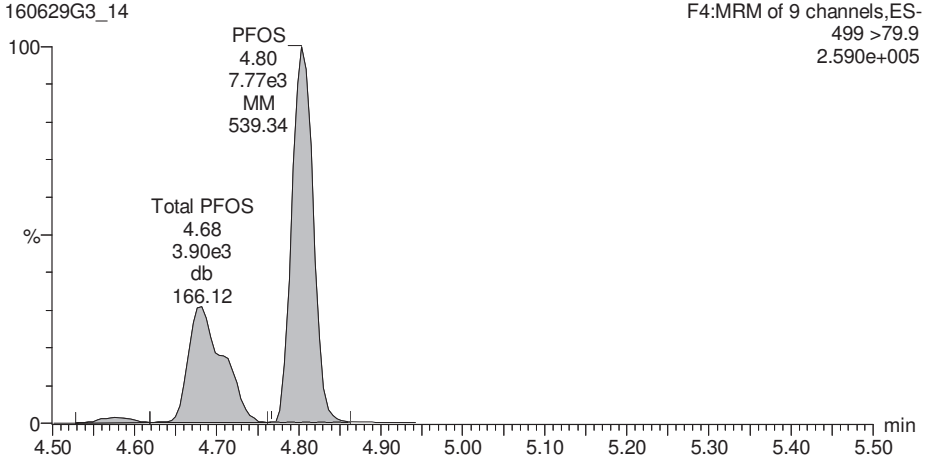
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Last Altered: Thursday, June 30, 2016 09:10:15 Pacific Daylight Time
Printed: Thursday, June 30, 2016 09:10:44 Pacific Daylight Time

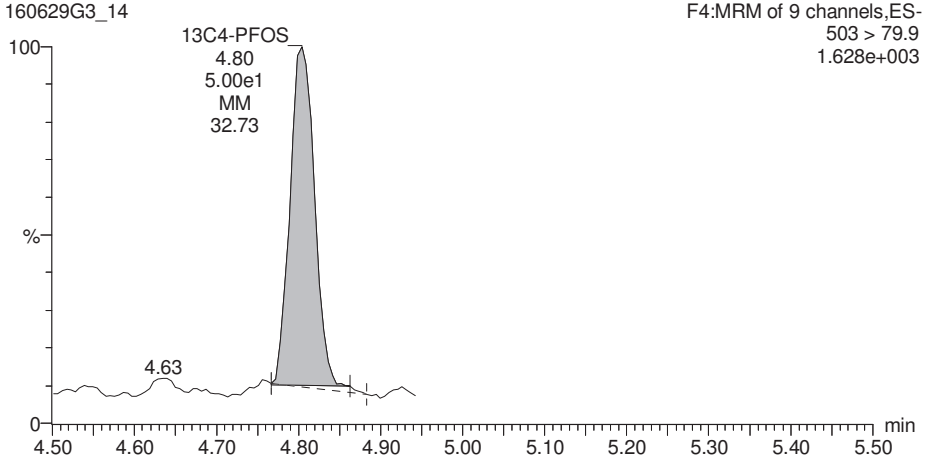
Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

ID: 1600783-01@25X OFPOL-MW-7-0616 0.125, Description: OFPOL-MW-7-0616, Name: 160629G3_14, Date: 30-Jun-2016, Time: 02:56:35, Instrument: , Lab: , User:

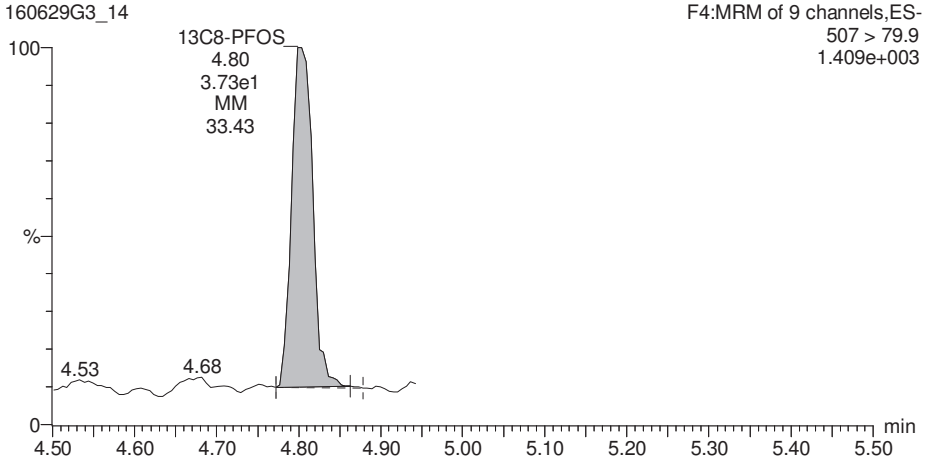
Total PFOS



13C4-PFOS



13C8-PFOS



Reviewed: WJL 6/30/16

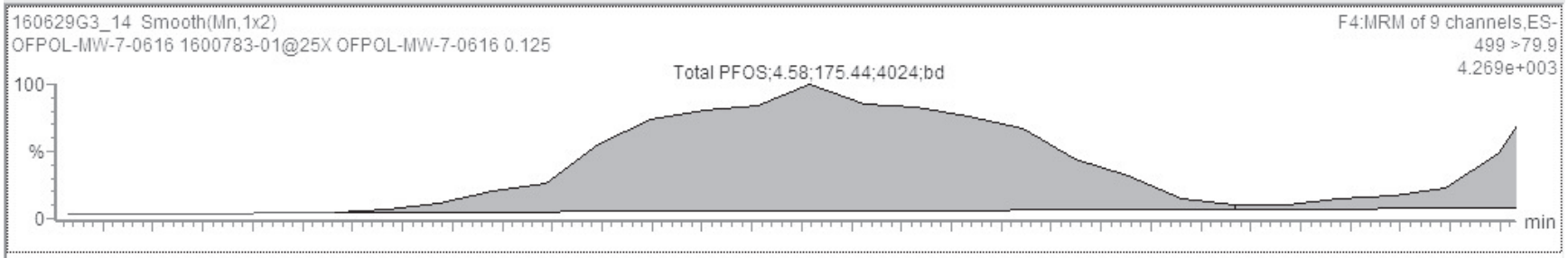
BR 6/30/16

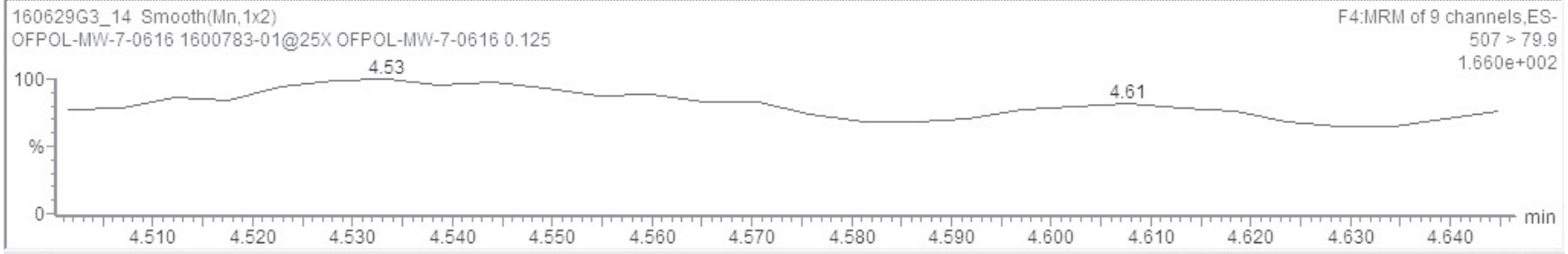
TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

160629G3_14 - 1600783-01@25X OFPOL-MW-7-0616 0.125 - OFPOL-MW-7-0616

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	2.75e2	0.241	0.127	3.10	3.08	0.0903	NO	91.8	0.0009349
8	13C4-PFHpA	367.2 > 321.8	5.55e2	0.744	0.127	3.96	3.96	0.0592	NO	60.1	0.0005012
9	18O2-PFHxS	403 > 102.6	1.41e2	0.572	0.127	4.08	4.07	0.0720	NO	73.2	0.0015075
10	13C2-PFOA	414.9 > 369.7	7.13e2	2.23	0.127	4.37	4.38	0.0826	NO	84.0	0.0005433
11	13C8-PFOS	507 > 79.9	3.73e1	1.11	0.127	4.80	4.80	0.0644	NO	65.4	0.0057144
12	13C5-PFNA	468.2 > 422.9	1.37e2	1.01	0.127	4.74	4.74	0.0765	NO	77.8	0.0013454
13	13C5-PFHxA	318.0 > 272.9	1.24e3	1.00	0.127	3.53	3.44	0.0984	NO	100.0	0.0002641
14	13C3-PFHxS	401.9 > 79.9	3.35e2	1.00	0.127	4.20	4.07	0.0984	NO	100.0	0.0005183
15	13C8-PFOA	421.3 > 376	3.81e2	1.00	0.127	4.49	4.37	0.0984	NO	100.0	0.0005691
16	13C4-PFOS	503 > 79.9	5.14e1	1.00	0.127	4.80	4.80	0.0984	NO	100.0	0.0074732
17	13C9-PFNA	472.2 > 426.9	1.73e2	1.00	0.127	4.83	4.74	0.0984	NO	100.0	0.0072269
18	Total PFBS	299 > 79.7	3.36e3		0.127	3.21		0.795	NO		
19	Total PFHxS	398.9 > 79.6	2.43e4		0.127	4.24		11.9	NO		
20	Total PFOA	413 > 368.7	2.09e4		0.127	4.54		3.59	NO		
21	Total PFOS	499 > 79.9	1.18e4		0.127	4.93		49.3	NO		





Ready 160629G3_14 CAP NUM

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_20.qld

Last Altered: Wednesday, June 29, 2016 14:48:57 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	1.199e4	4.535e3		0.124	3.13	315		
2	2	PFHpA	363 > 318.9	3.448e4	1.432e4		0.124	3.99	203		
3	3	PFHxS	398.9 > 79.6	8.014e4	2.332e3		0.124	4.10	3340	E*	
4	4	PFOA	413 > 368.7	1.381e5	1.410e4		0.124	4.42	1320		
5	5	PFOS	499 >79.9	2.479e5	1.894e3		0.124	4.83	19100	E*	
6	6	PFNA	463 > 418.8	8.276e3	1.212e4		0.124	4.78	88.2		
7	7	13C3-PFBS	302.0 > 98.8	4.535e3	2.032e4	0.236	0.124	3.12	95.1		94.5
8	8	13C4-PFHpA	367.2 > 321.8	1.432e4	2.032e4	0.923	0.124	3.99	76.9		76.4
9	9	18O2-PFHxS	403 > 102.6	2.332e3	5.579e3	0.471	0.124	4.10	89.3	*	88.7
10	10	13C2-PFOA	414.9 > 369.7	1.410e4	1.664e4	1.088	0.124	4.41	78.5		77.9
11	11	13C8-PFOS	507 > 79.9	1.894e3	2.220e3	1.142	0.124	4.83	75.2	*	74.7
12	12	13C5-PFNA	468.2 > 422.9	1.212e4	1.746e4	1.008	0.124	4.77	69.3		68.9
13	13	13C5-PFHxA	318.0 > 272.9	2.032e4	2.032e4	1.000	0.124	3.47	101		100
14	14	13C3-PFHxS	401.9 > 79.9	5.579e3	5.579e3	1.000	0.124	4.10	101		100
15	15	13C8-PFOA	421.3 > 376	1.664e4	1.664e4	1.000	0.124	4.41	101		100
16	16	13C4-PFOS	503 > 79.9	2.220e3	2.220e3	1.000	0.124	4.83	101		100
17	17	13C9-PFNA	472.2 > 426.9	1.746e4	1.746e4	1.000	0.124	4.77	101		100
18	18	Total PFBS	299 > 79.7		4.535e3		0.124		321		
19	19	Total PFHxS	398.9 > 79.6		2.332e3		0.124		4580		
20	20	Total PFOA	413 > 368.7		1.410e4		0.124		1600		
21	21	Total PFOS	499 > 79.9		1.894e3		0.124		31500		

*SEE 1:20 DILUTION

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_20.qld

Last Altered: Wednesday, June 29, 2016 14:48:57 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	11987.362	4534.804	314.9
2	18	Total PFBS	299 > 79.7	3.01	223.566	4534.804	6.1

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	19	Total PFHxS	398.9 > 79.6	3.89	113.593	2332.200	6.9
2	3	PFHxS	398.9 > 79.6	4.10	80144.031	2332.200	3336.0
3	19	Total PFHxS	398.9 > 79.6	3.99	23788.227	2332.200	1234.8

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	138149.547	14103.491	1320.5
2	20	Total PFOA	413 > 368.7	4.30	28408.633	14103.491	271.3
3	20	Total PFOA	413 > 368.7	4.18	439.961	14103.491	4.2

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	247889.141	1893.970	19083.7
2	21	Total PFOS	499 >79.9	4.71	132745.953	1893.970	11723.1
3	21	Total PFOS	499 >79.9	4.61	6311.283	1893.970	714.6

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

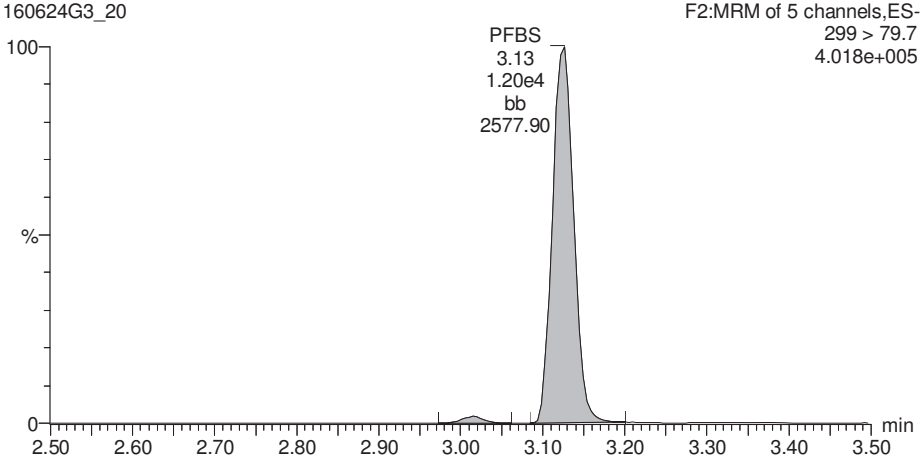
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Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

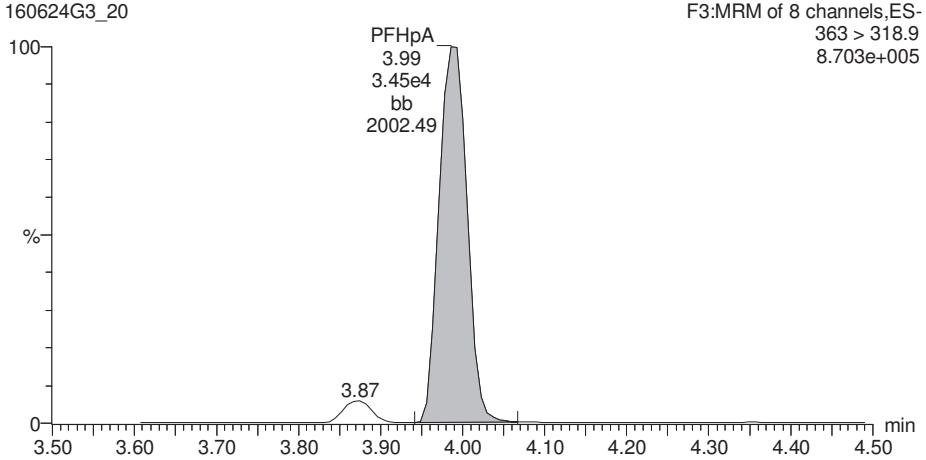
Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00, Instrument: , Lab: , User:

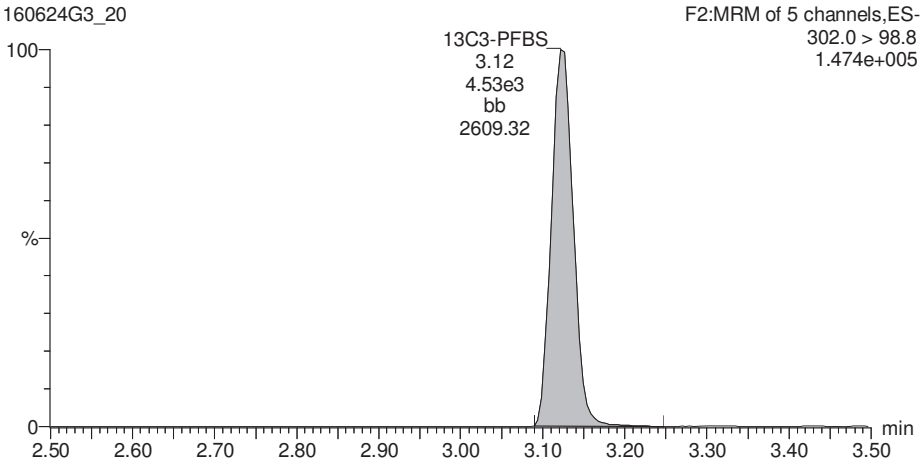
Total PFBS



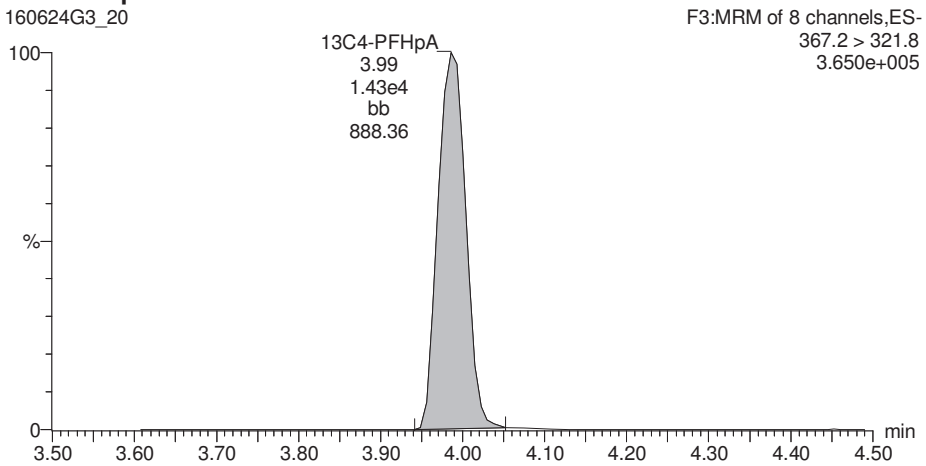
PFHpA



13C3-PFBS



13C4-PFHpA



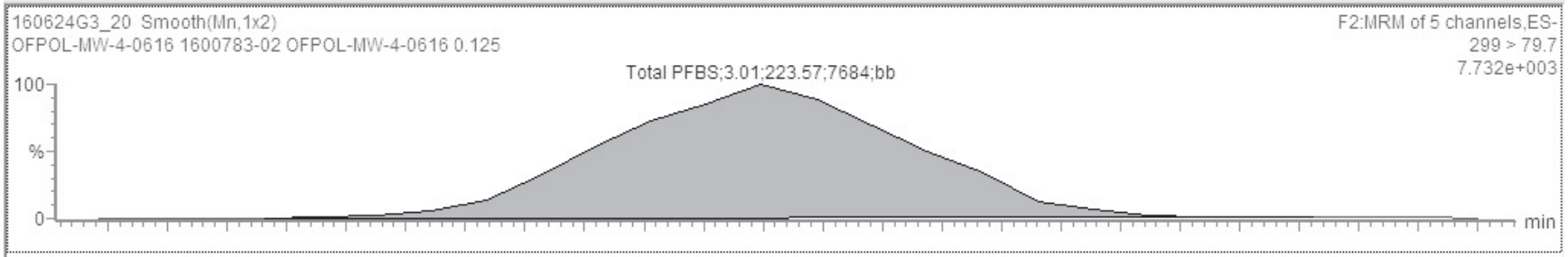
Reviewed: WJL 6/30/16 BR 6/29/16

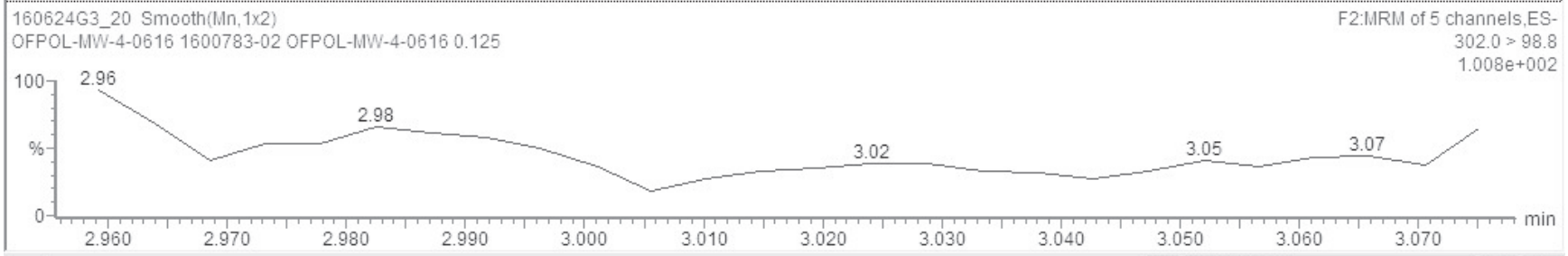
TargetLynx - 160624G3_20.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_20 - 1600783-02 OFPOL-MW-4-0616 0.125 - OFPOL-MW-4-0616

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	4.53e3	0.236	0.124	3.13	3.12	95.1	NO	94.5	0.0916880
8	13C4-PFHpA	367.2 > 321.8	1.43e4	0.923	0.124	4.00	3.99	76.9	NO	76.4	0.1703727
9	18O2-PFHxS	403 > 102.6	2.33e3	0.471	0.124	4.12	4.10	89.3	NO	88.7	0.1307102
10	13C2-PFOA	414.9 > 369.7	1.38e4	1.09	0.124	4.41	4.41	77.8	NO	77.3	0.0169434
11	13C8-PFOS	507 > 79.9	1.86e3	1.14	0.124	4.83	4.83	73.7	NO	73.2	0.6299618
12	13C5-PFNA	468.2 > 422.9	1.21e4	1.01	0.124	4.77	4.77	69.3	NO	68.9	0.2107183
13	13C5-PFHxA	318.0 > 272.9	2.03e4	1.00	0.124	3.53	3.47	101	NO	100.0	0.0337493
14	13C3-PFHxS	401.9 > 79.9	5.58e3	1.00	0.124	4.20	4.10	101	NO	100.0	0.0980904
15	13C8-PFOA	421.3 > 376	1.64e4	1.00	0.124	4.49	4.41	101	NO	100.0	0.0150142
16	13C4-PFOS	503 > 79.9	2.22e3	1.00	0.124	4.80	4.83	101	NO	100.0	0.0000000
17	13C9-PFNA	472.2 > 426.9	1.75e4	1.00	0.124	4.83	4.77	101	NO	100.0	0.0059482
18	Total PFBS	299 > 79.7	1.22e4		0.124	3.21		321	NO		
19	Total PFHxS	398.9 > 79.6	1.04e5		0.124	4.24		4580	NO		
20	Total PFOA	413 > 368.7	1.64e5		0.124	4.54		1600	NO		
21	Total PFOS	499 > 79.9	3.87e5		0.124	4.93		32000	NO		





Ready 160624G3_20 CAP NUM

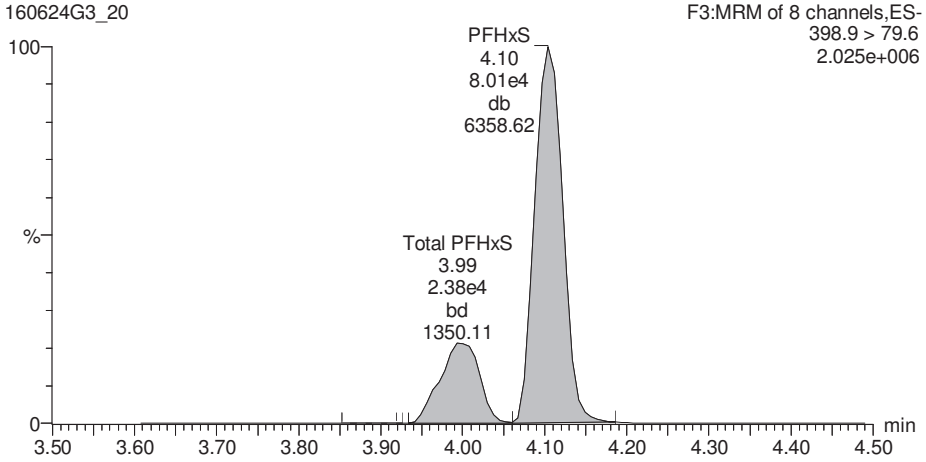
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_20.qld

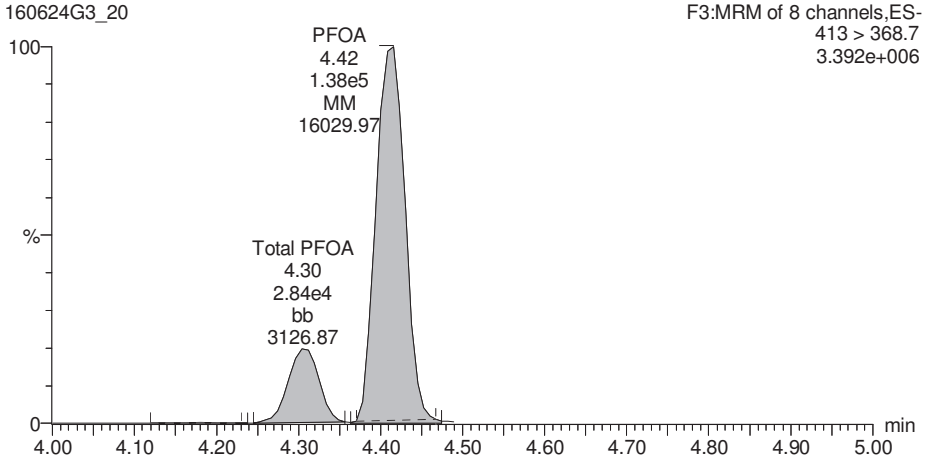
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Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00, Instrument: , Lab: , User:

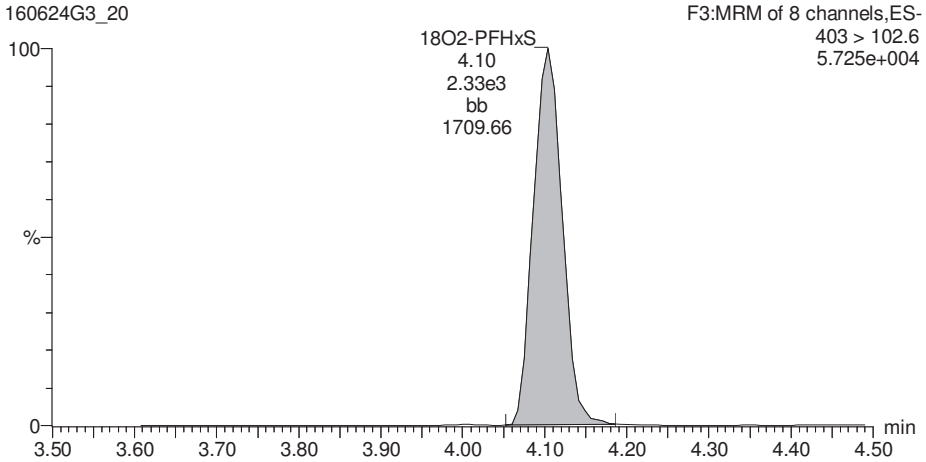
Total PFHxS



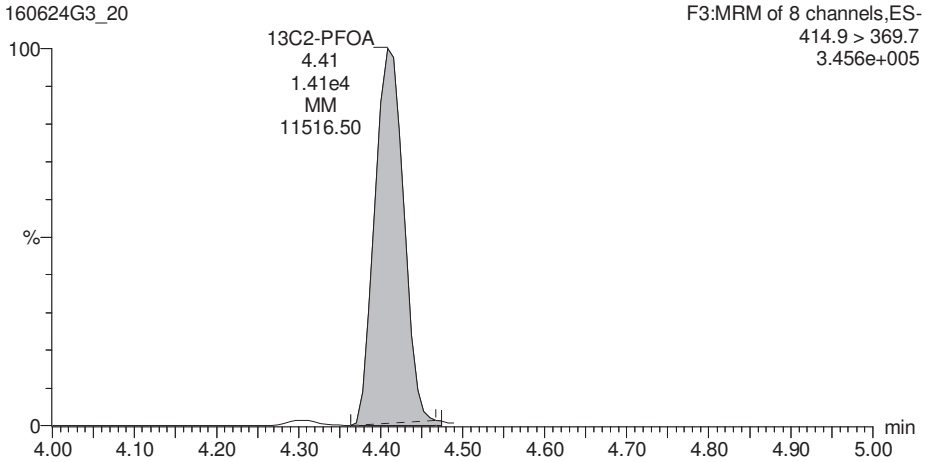
Total PFOA



18O2-PFHxS



13C2-PFOA



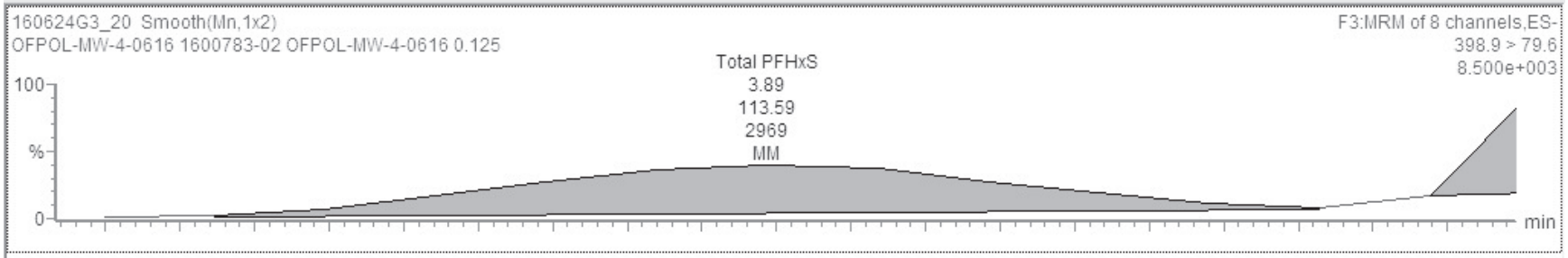
Reviewed: WJL 6/30/16 BR 6/29/16

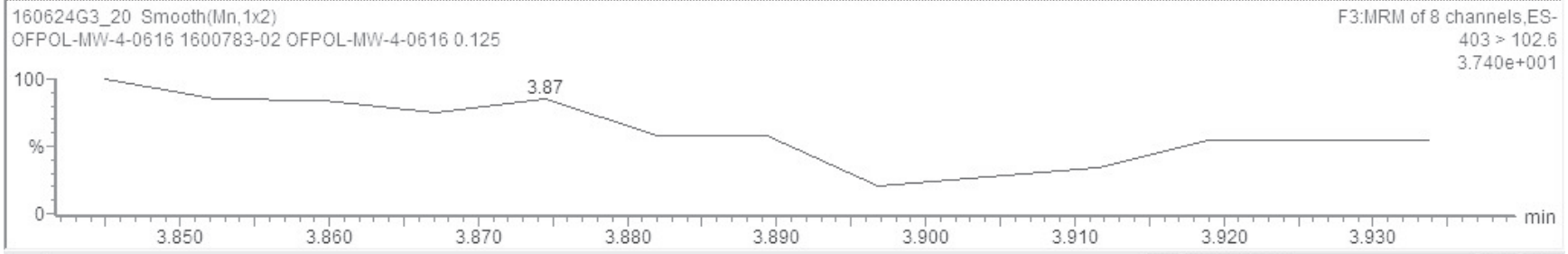
TargetLynx - 160624G3_20.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_20 - 1600783-02 OFPOL-MW-4-0616 0.125 - OFPOL-MW-4-0616

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	4.53e3	0.236	0.124	3.13	3.12	95.1	NO	94.5	0.0916880
8	13C4-PFHpA	367.2 > 321.8	1.43e4	0.923	0.124	4.00	3.99	76.9	NO	76.4	0.1703727
9	18O2-PFHxS	403 > 102.6	2.33e3	0.471	0.124	4.12	4.10	89.3	NO	88.7	0.1307102
10	13C2-PFOA	414.9 > 369.7	1.38e4	1.09	0.124	4.41	4.41	77.8	NO	77.3	0.0169434
11	13C8-PFOS	507 > 79.9	1.86e3	1.14	0.124	4.83	4.83	73.7	NO	73.2	0.6299618
12	13C5-PFNA	468.2 > 422.9	1.21e4	1.01	0.124	4.77	4.77	69.3	NO	68.9	0.2107183
13	13C5-PFHxA	318.0 > 272.9	2.03e4	1.00	0.124	3.53	3.47	101	NO	100.0	0.0337493
14	13C3-PFHxS	401.9 > 79.9	5.58e3	1.00	0.124	4.20	4.10	101	NO	100.0	0.0980904
15	13C8-PFOA	421.3 > 376	1.64e4	1.00	0.124	4.49	4.41	101	NO	100.0	0.0150142
16	13C4-PFOS	503 > 79.9	2.22e3	1.00	0.124	4.80	4.83	101	NO	100.0	0.0000000
17	13C9-PFNA	472.2 > 426.9	1.75e4	1.00	0.124	4.83	4.77	101	NO	100.0	0.0059482
18	Total PFBS	299 > 79.7	1.22e4		0.124	3.21		321	NO		
19	Total PFHxS	398.9 > 79.6	1.04e5		0.124	4.24		4580	NO		
20	Total PFOA	413 > 368.7	1.64e5		0.124	4.54		1600	NO		
21	Total PFOS	499 > 79.9	3.87e5		0.124	4.93		32000	NO		





Ready 160624G3_20 CAP NUM

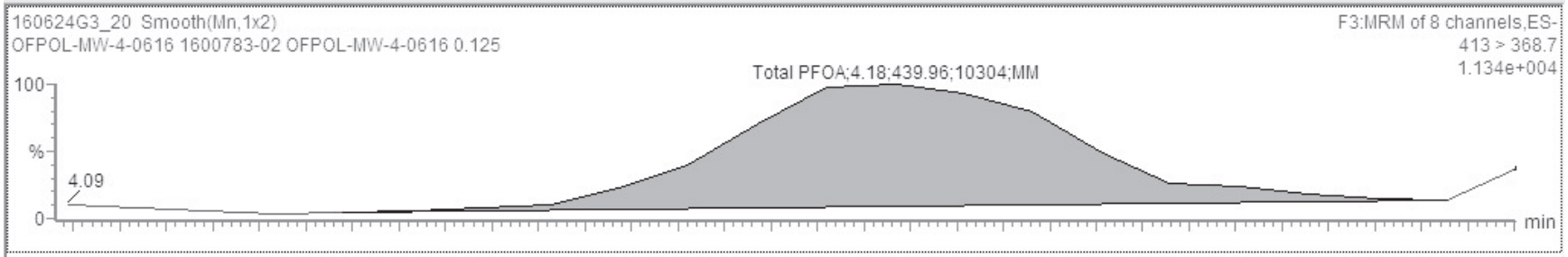
Reviewed: WJL 6/30/16 BR 6/29/16

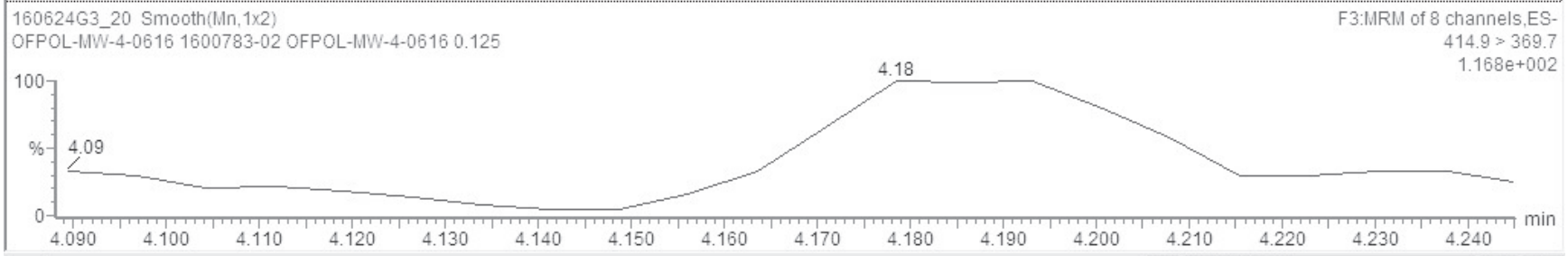
TargetLynx - 160624G3_20.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_20 - 1600783-02 OFPOL-MW-4-0616 0.125 - OFPOL-MW-4-0616

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	4.53e3	0.236	0.124	3.13	3.12	95.1	NO	94.5	0.0916880
8	13C4-PFHpA	367.2 > 321.8	1.43e4	0.923	0.124	4.00	3.99	76.9	NO	76.4	0.1703727
9	18O2-PFHxS	403 > 102.6	2.33e3	0.471	0.124	4.12	4.10	89.3	NO	88.7	0.1307102
10	13C2-PFOA	414.9 > 369.7	1.41e4	1.09	0.124	4.41	4.41	79.5	NO	79.0	0.0169434
11	13C8-PFOS	507 > 79.9	1.86e3	1.14	0.124	4.83	4.83	73.7	NO	73.2	0.6299618
12	13C5-PFNA	468.2 > 422.9	1.21e4	1.01	0.124	4.77	4.77	69.3	NO	68.9	0.2107183
13	13C5-PFHxA	318.0 > 272.9	2.03e4	1.00	0.124	3.53	3.47	101	NO	100.0	0.0337493
14	13C3-PFHxS	401.9 > 79.9	5.58e3	1.00	0.124	4.20	4.10	101	NO	100.0	0.0980904
15	13C8-PFOA	421.3 > 376	1.64e4	1.00	0.124	4.49	4.41	101	NO	100.0	0.0150142
16	13C4-PFOS	503 > 79.9	2.22e3	1.00	0.124	4.80	4.83	101	NO	100.0	0.0000000
17	13C9-PFNA	472.2 > 426.9	1.75e4	1.00	0.124	4.83	4.77	101	NO	100.0	0.0059482
18	Total PFBS	299 > 79.7	1.22e4		0.124	3.21		321	NO		
19	Total PFHxS	398.9 > 79.6	1.04e5		0.124	4.24		4580	NO		
20	Total PFOA	413 > 368.7	1.67e5		0.124	4.54		1600	NO		
21	Total PFOS	499 > 79.9	3.87e5		0.124	4.93		32000	NO		





Ready 160624G3_20 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

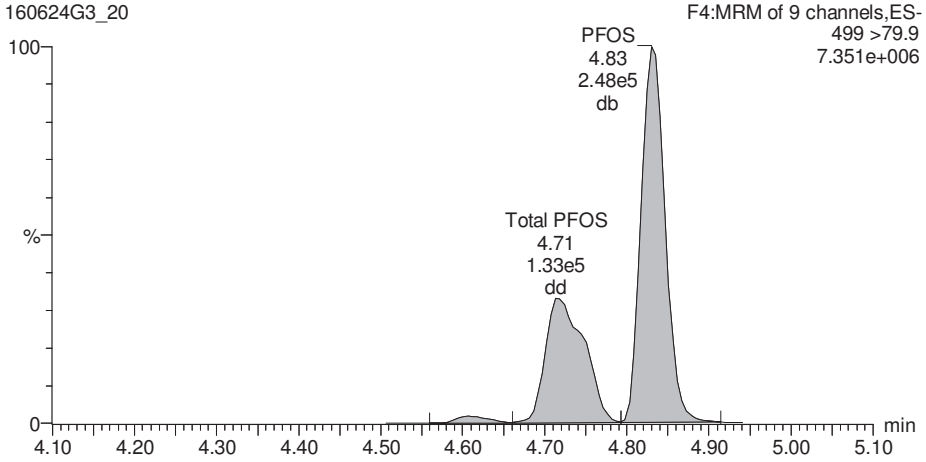
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_20.qld

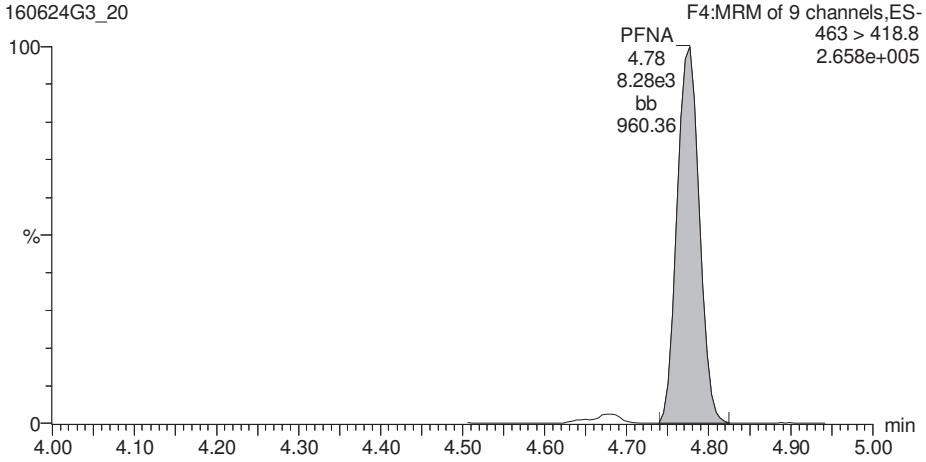
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Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00, Instrument: , Lab: , User:

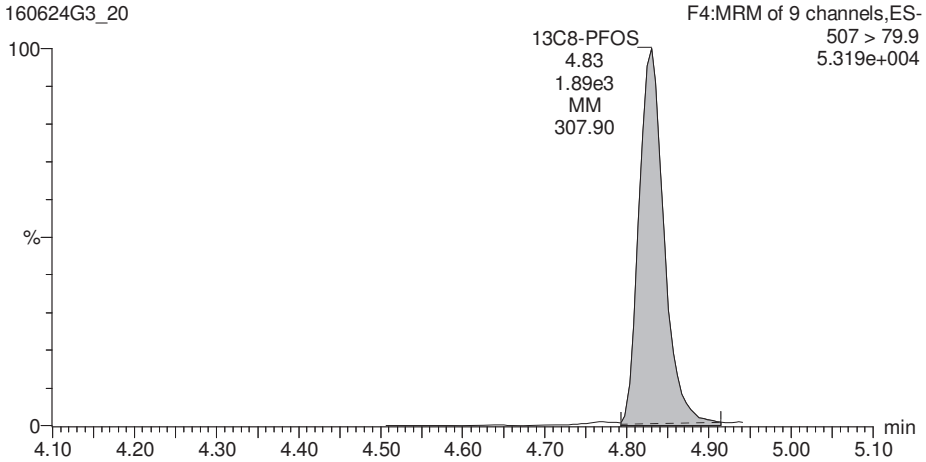
Total PFOS



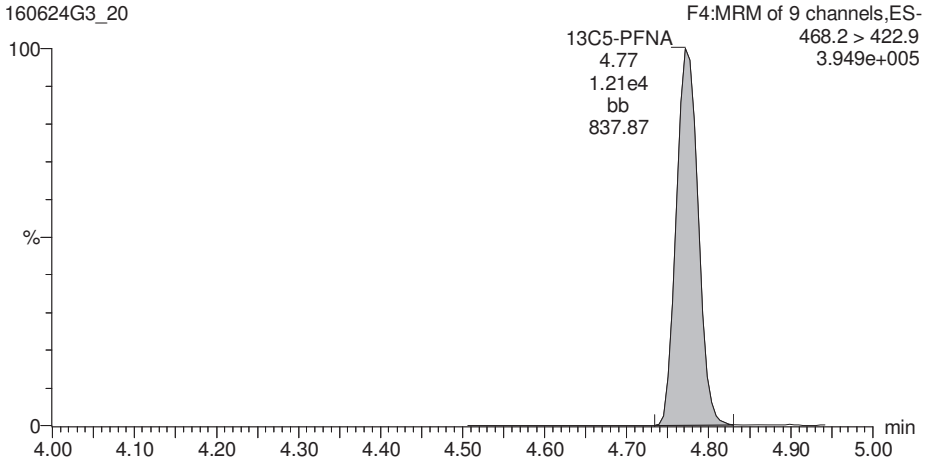
PFNA



13C8-PFOS



13C5-PFNA



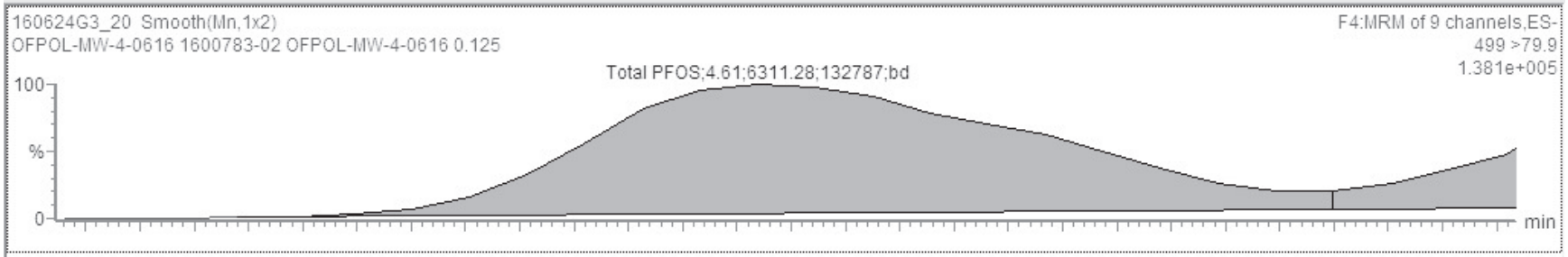
Reviewed: WJL 6/30/16 BR 6/29/16

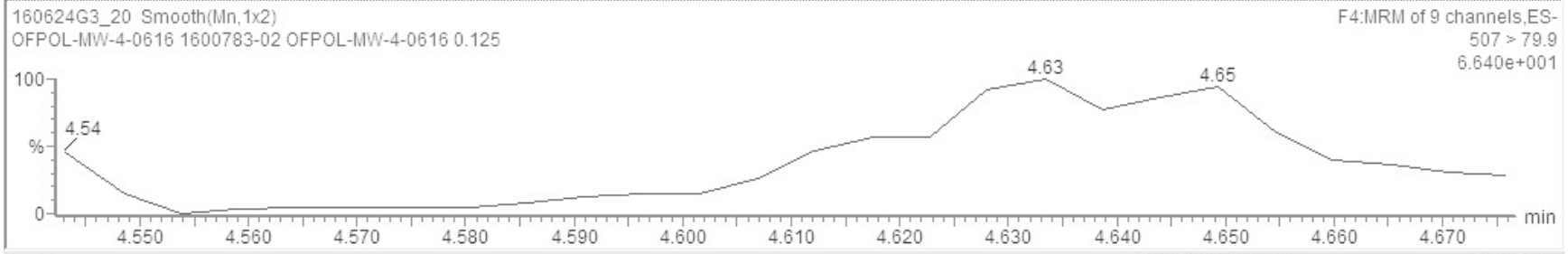
TargetLynx - 160624G3_20.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_20 - 1600783-02 OFPOL-MW-4-0616 0.125 - OFPOL-MW-4-0616

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	4.53e3	0.236	0.124	3.13	3.12	95.1	NO	94.5	0.0916880
8	13C4-PFHpA	367.2 > 321.8	1.43e4	0.923	0.124	4.00	3.99	76.9	NO	76.4	0.1703727
9	18O2-PFHxS	403 > 102.6	2.33e3	0.471	0.124	4.12	4.10	89.3	NO	88.7	0.1307102
10	13C2-PFOA	414.9 > 369.7	1.41e4	1.09	0.124	4.41	4.41	79.5	NO	79.0	0.0169434
11	13C8-PFOS	507 > 79.9	1.89e3	1.14	0.124	4.83	4.83	75.2	NO	74.7	0.6299618
12	13C5-PFNA	468.2 > 422.9	1.21e4	1.01	0.124	4.77	4.77	69.3	NO	68.9	0.2107183
13	13C5-PFHxA	318.0 > 272.9	2.03e4	1.00	0.124	3.53	3.47	101	NO	100.0	0.0337493
14	13C3-PFHxS	401.9 > 79.9	5.58e3	1.00	0.124	4.20	4.10	101	NO	100.0	0.0980904
15	13C8-PFOA	421.3 > 376	1.64e4	1.00	0.124	4.49	4.41	101	NO	100.0	0.0150142
16	13C4-PFOS	503 > 79.9	2.22e3	1.00	0.124	4.80	4.83	101	NO	100.0	0.0000000
17	13C9-PFNA	472.2 > 426.9	1.75e4	1.00	0.124	4.83	4.77	101	NO	100.0	0.0059482
18	Total PFBS	299 > 79.7	1.22e4		0.124	3.21		321	NO		
19	Total PFHxS	398.9 > 79.6	1.04e5		0.124	4.24		4580	NO		
20	Total PFOA	413 > 368.7	1.67e5		0.124	4.54		1600	NO		
21	Total PFOS	499 > 79.9	3.87e5		0.124	4.93		31500	NO		





Ready 160624G3_20 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

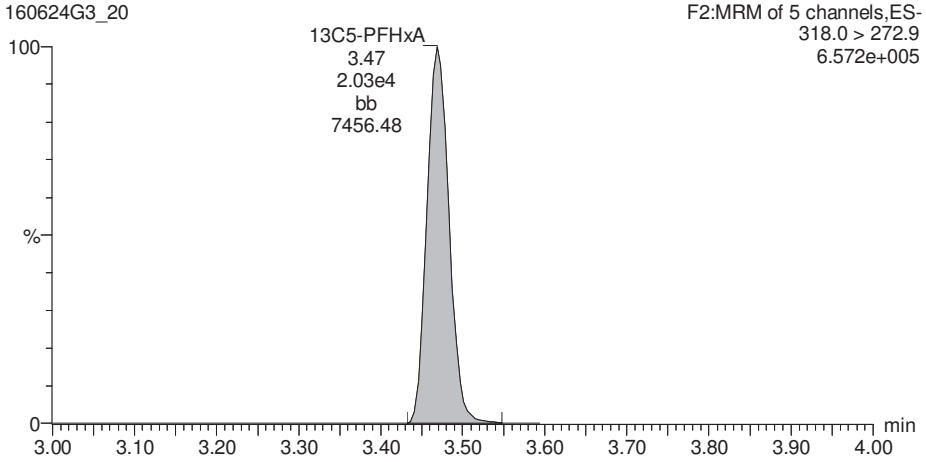
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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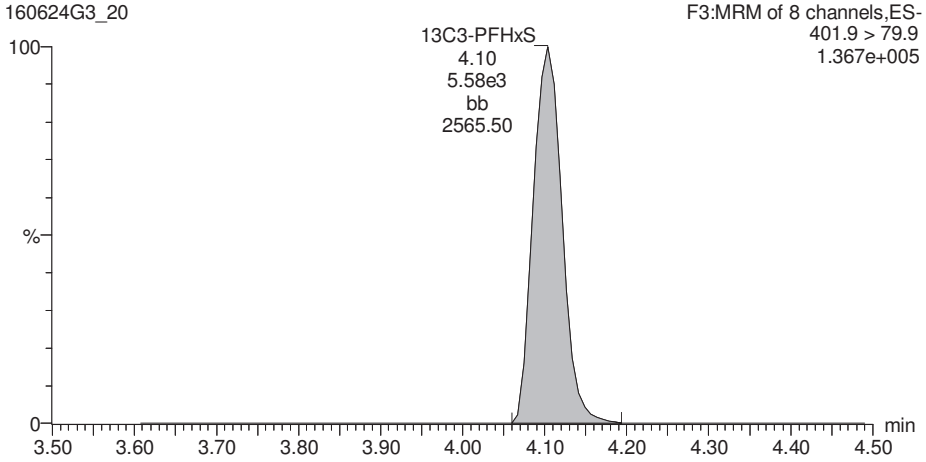
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ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00, Instrument: , Lab: , User:

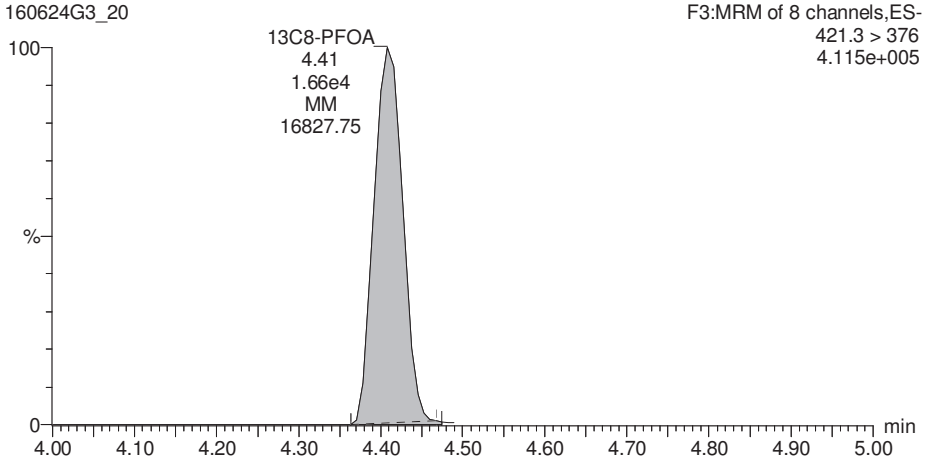
13C5-PFHxA



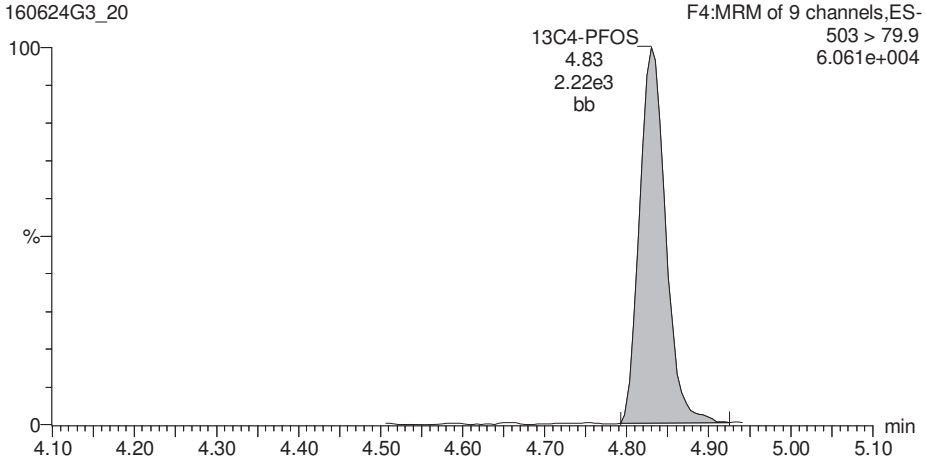
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/29/16

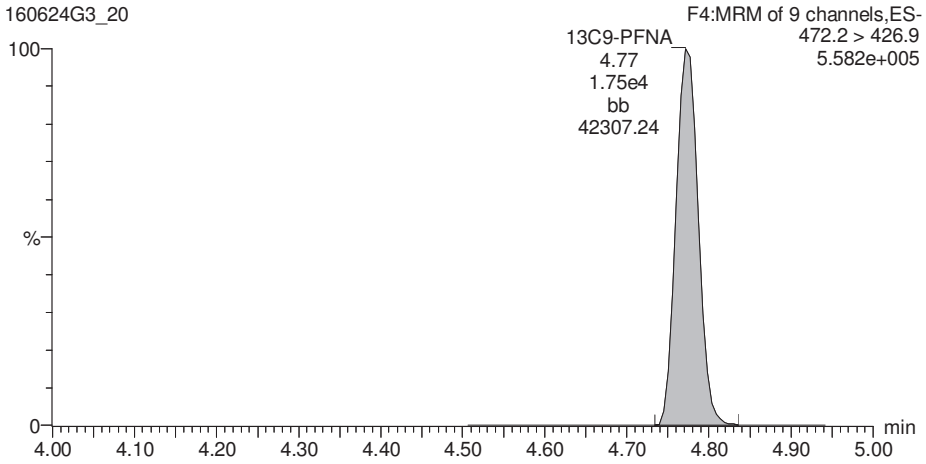
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_20.qld

Last Altered: Wednesday, June 29, 2016 14:48:57 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 14:49:20 Pacific Daylight Time

ID: 1600783-02 OFPOL-MW-4-0616 0.125, Description: OFPOL-MW-4-0616, Name: 160624G3_20, Date: 25-Jun-2016, Time: 04:38:00, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_55.qld

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Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_55.wiff, Date: 29-Jun-2016, Time: 02:56:06, ID: 1600783-02@20x, Description: OFPOL-MW-4-0616

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3	PFHxS	79.91	2.19e3	8.10e1		0.124	4.47	4.24	
2	5	PFOS	79.92	1.62e4	1.06e2		0.124	5.13	22.6	
3	9	18O2-PFHxS	102.9	8.10e1	3.45e2	0.307	0.124	4.47	0.0770	76.4
4	11	13C8-PFOS	79.93	1.06e2	1.51e2	1.026	0.124	5.12	0.0691	68.5
5	14	13C3-PFHxS	80.0	3.45e2	3.45e2	1.000	0.124	4.47	0.101	100.0
6	16	13C4-PFOS	79.94	1.51e2	1.51e2	1.000	0.124	5.12	0.101	100.0
7	19	Total PFHxS	79.91		8.10e1		0.124		5.09	
8	21	Total PFOS	79.92		1.06e2		0.124		31.0	

Target = ug/L

Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_55.qld

Last Altered: Thursday, June 30, 2016 12:58:43 Pacific Daylight Time
Printed: Thursday, June 30, 2016 13:00:15 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_55.wiff, Date: 29-Jun-2016, Time: 02:56:06, ID: 1600783-02@20x, Description: OFPOL-MW-4-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.48	2.35e2	3.70e2	0.316
2	18	Total PFBS	79.9	3.35	4.91e0	3.70e2	0.00660

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	2.19e3	8.10e1	4.24
2	19	Total PFHxS	79.91	4.37	4.29e2	8.10e1	0.831
3	19	Total PFHxS	79.91	4.27	3.74e0	8.10e1	0.00725
4	19	Total PFHxS	79.91	4.26	3.42e0	8.10e1	0.00664

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	368.9	4.65	5.14e2	5.36e2	0.228
2	4	PFOA	368.9	4.75	2.69e3	5.36e2	1.20

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	1.62e4	1.06e2	22.6
2	21	Total PFOS	79.92	5.02	5.77e3	1.06e2	8.03
3	21	Total PFOS	79.92	4.93	3.01e2	1.06e2	0.418

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q2

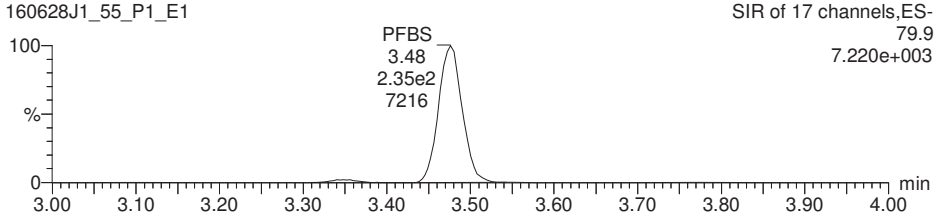
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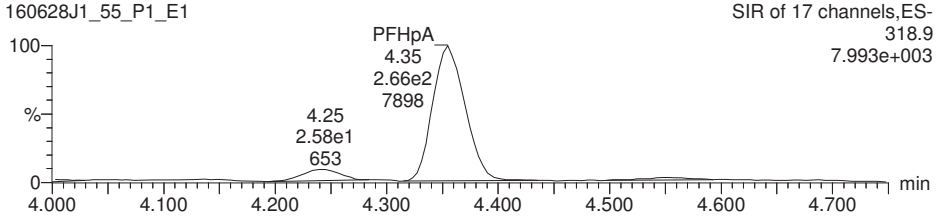
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Name: 160628J1_55.wiff, Date: 29-Jun-2016, Time: 02:56:06, ID: 1600783-02@20x, Description: OFPOL-MW-4-0616

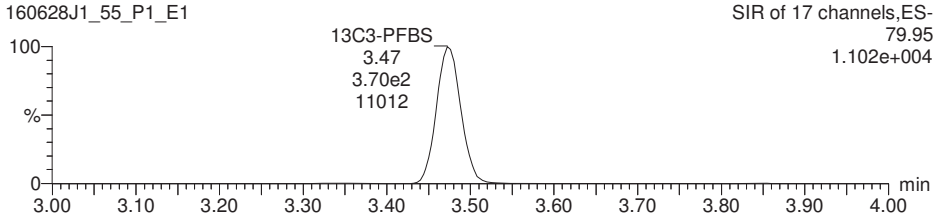
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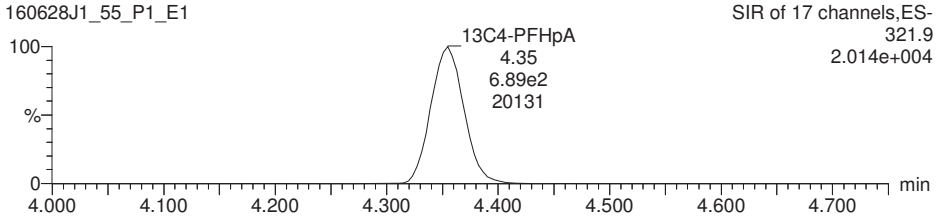
PFHpA



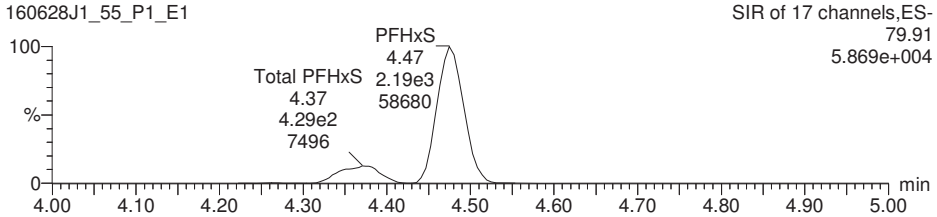
13C3-PFBS



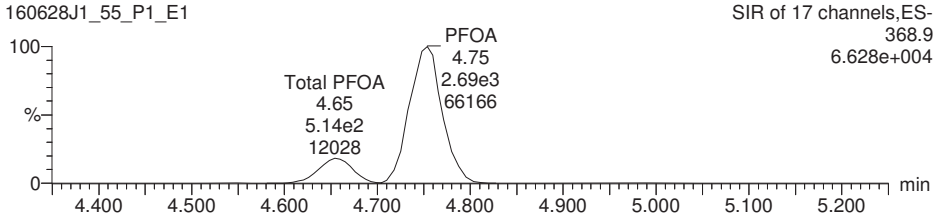
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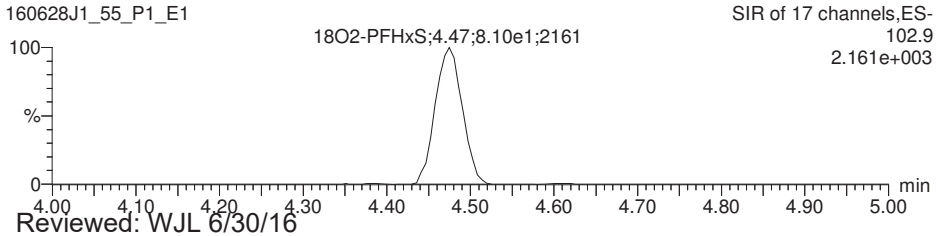
PFHxS



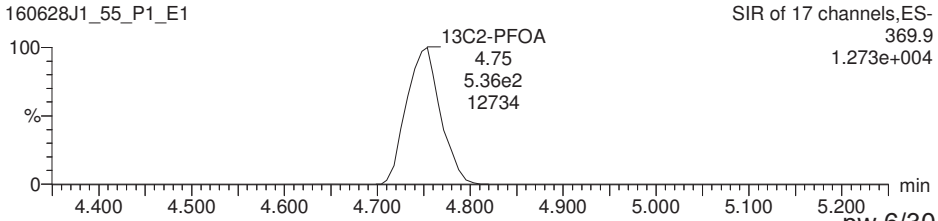
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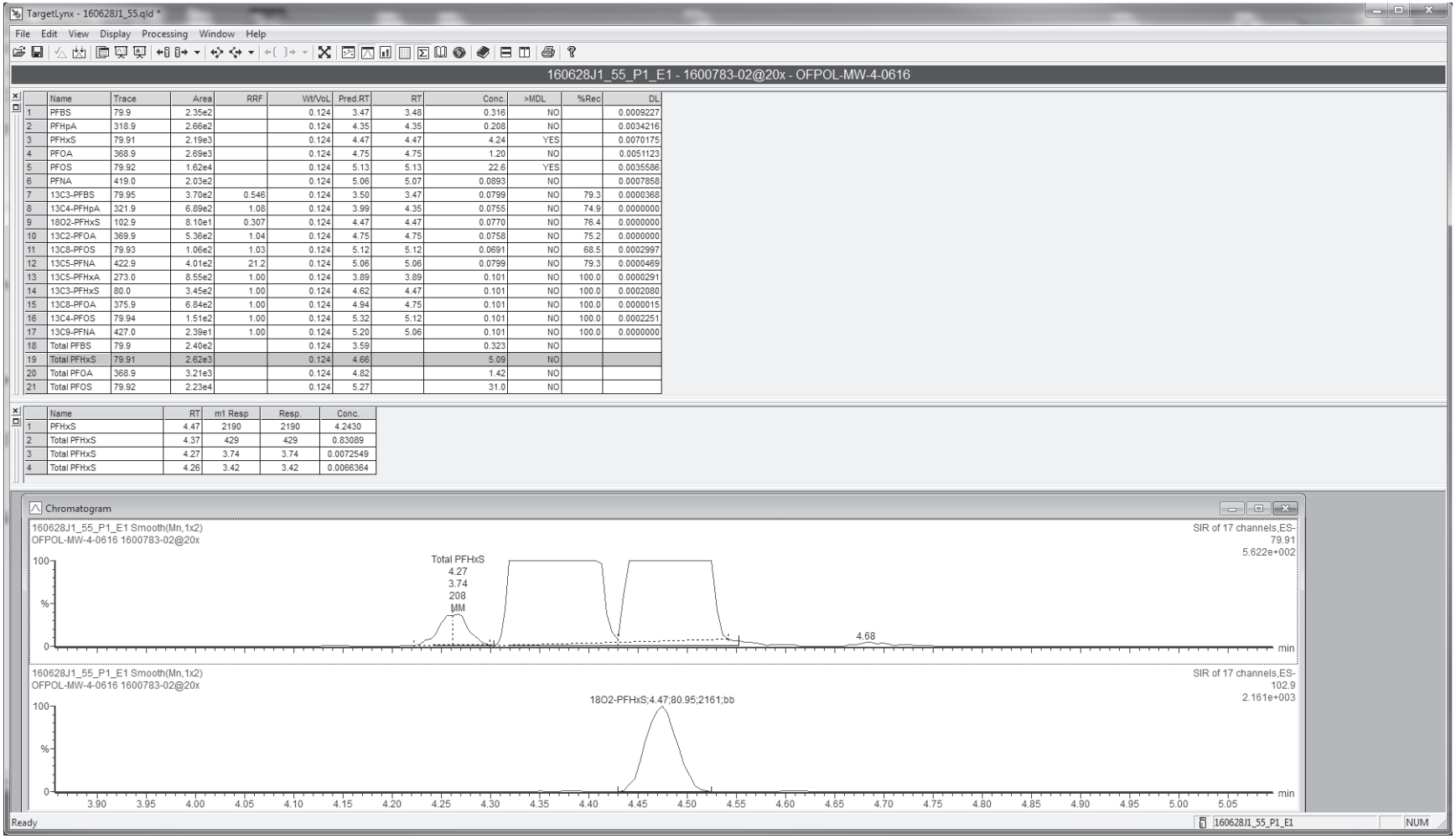
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.35e2		0.124	3.47	3.48	0.316	NO		0.0009227
2	PFHpA	318.9	2.66e2		0.124	4.35	4.35	0.208	NO		0.0034216
3	PFHxS	79.91	2.19e3		0.124	4.47	4.47	4.24	YES		0.0070175
4	PFOA	368.9	2.69e3		0.124	4.75	4.75	1.20	NO		0.0051123
5	PFOS	79.92	1.62e4		0.124	5.13	5.13	22.6	YES		0.0035586
6	PFNA	419.0	2.03e2		0.124	5.06	5.07	0.0893	NO		0.0007858
7	13C3-PFBS	79.95	3.70e2	0.546	0.124	3.50	3.47	0.0799	NO	79.3	0.0000368
8	13C4-PFHpA	321.9	6.89e2	1.08	0.124	3.99	4.35	0.0755	NO	74.9	0.0000000
9	18O2-PFHxS	102.9	8.10e1	0.307	0.124	4.47	4.47	0.0770	NO	76.4	0.0000000
10	13C2-PFOA	369.9	5.36e2	1.04	0.124	4.75	4.75	0.0758	NO	75.2	0.0000000
11	13C8-PFOS	79.93	1.06e2	1.03	0.124	5.12	5.12	0.0691	NO	68.5	0.0002997
12	13C5-PFNA	422.9	4.01e2	21.2	0.124	5.06	5.06	0.0799	NO	79.3	0.0000469
13	13C5-PFHxA	273.0	8.55e2	1.00	0.124	3.89	3.89	0.101	NO	100.0	0.0000291
14	13C3-PFHxS	80.0	3.45e2	1.00	0.124	4.62	4.47	0.101	NO	100.0	0.0002080
15	13C8-PFOA	375.9	6.84e2	1.00	0.124	4.94	4.75	0.101	NO	100.0	0.0000015
16	13C4-PFOS	79.94	1.51e2	1.00	0.124	5.32	5.12	0.101	NO	100.0	0.0002251
17	13C9-PFNA	427.0	2.39e1	1.00	0.124	5.20	5.06	0.101	NO	100.0	0.0000000
18	Total PFBS	79.9	2.40e2		0.124	3.59		0.323	NO		
19	Total PFHxS	79.91	2.62e3		0.124	4.66		5.09	NO		
20	Total PFOA	368.9	3.21e3		0.124	4.82		1.42	NO		
21	Total PFOS	79.92	2.23e4		0.124	5.27		31.0	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	2190	2190	4.2430
2	Total PFHxS	4.37	429	429	0.83089
3	Total PFHxS	4.27	3.74	3.74	0.0072549
4	Total PFHxS	4.26	3.42	3.42	0.0066364

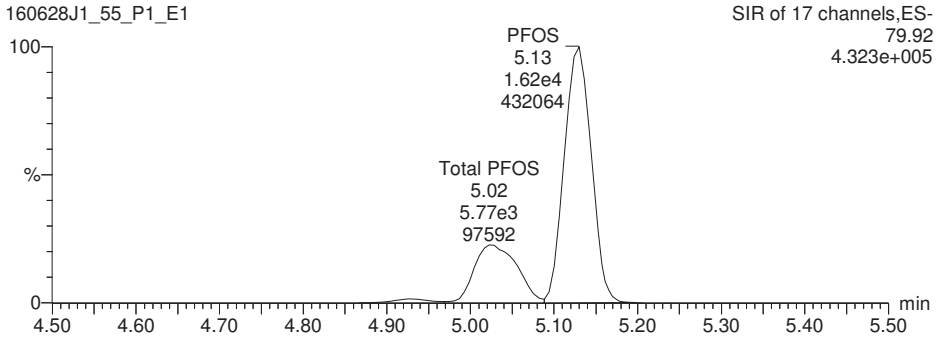
Reviewed: WJL 6/30/16 pw 6/30/16

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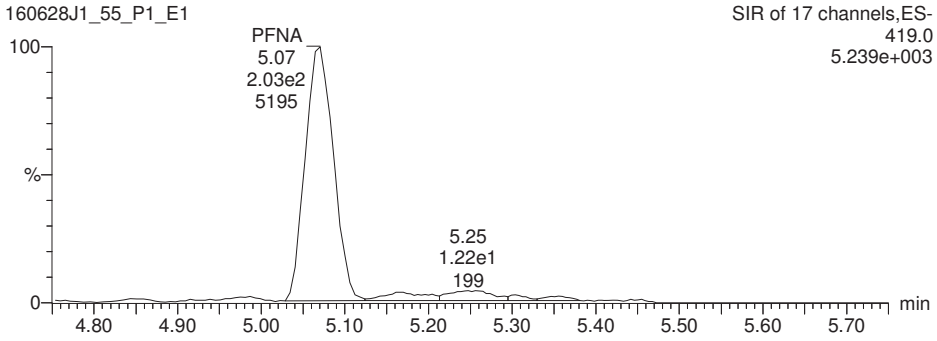
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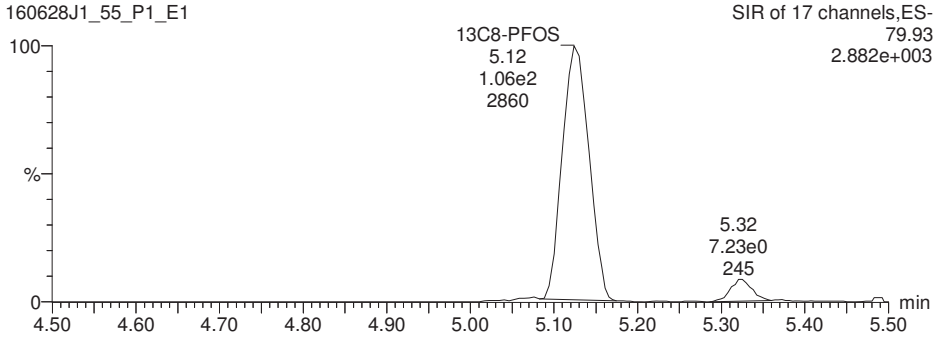
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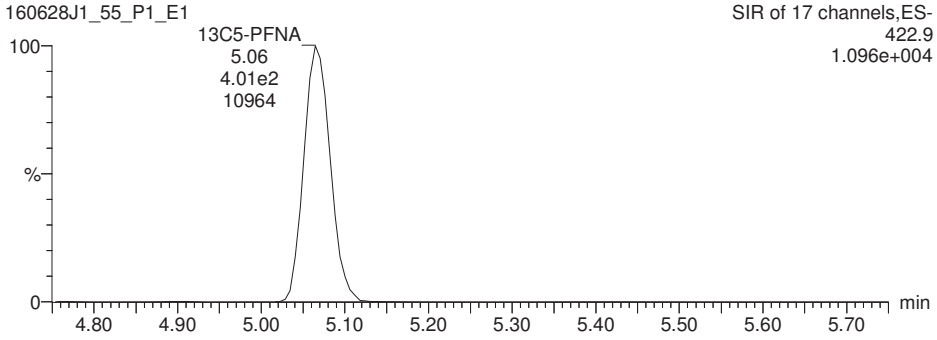
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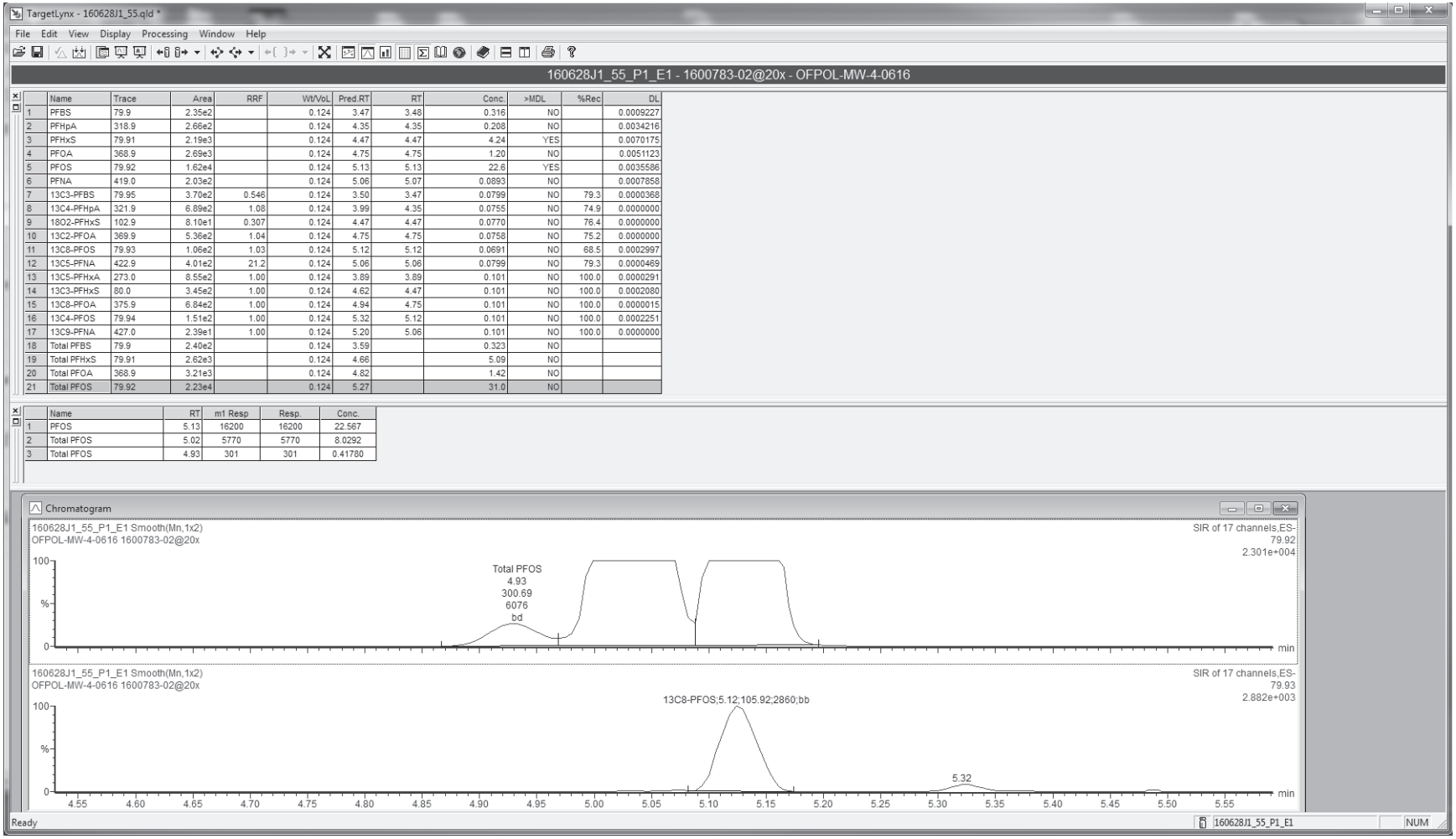
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.35e2		0.124	3.47	3.48	0.316	NO		0.0009227
2	PFHpA	318.9	2.66e2		0.124	4.35	4.35	0.208	NO		0.0034216
3	PFHxS	79.91	2.19e3		0.124	4.47	4.47	4.24	YES		0.0070175
4	PFOA	368.9	2.69e3		0.124	4.75	4.75	1.20	NO		0.0051123
5	PFOS	79.92	1.62e4		0.124	5.13	5.13	22.6	YES		0.0035586
6	PFNA	419.0	2.03e2		0.124	5.06	5.07	0.0893	NO		0.0007858
7	13C3-PFBS	79.95	3.70e2	0.546	0.124	3.50	3.47	0.0799	NO	79.3	0.0000368
8	13C4-PFHpA	321.9	6.89e2	1.08	0.124	3.99	4.35	0.0755	NO	74.9	0.0000000
9	18O2-PFHxS	102.9	8.10e1	0.307	0.124	4.47	4.47	0.0770	NO	76.4	0.0000000
10	13C2-PFOA	369.9	5.36e2	1.04	0.124	4.75	4.75	0.0758	NO	75.2	0.0000000
11	13C8-PFOS	79.93	1.06e2	1.03	0.124	5.12	5.12	0.0691	NO	68.5	0.0002997
12	13C5-PFNA	422.9	4.01e2	21.2	0.124	5.06	5.06	0.0799	NO	79.3	0.0000469
13	13C5-PFHxA	273.0	8.55e2	1.00	0.124	3.89	3.89	0.101	NO	100.0	0.0000291
14	13C3-PFHxS	80.0	3.45e2	1.00	0.124	4.62	4.47	0.101	NO	100.0	0.0002080
15	13C8-PFOA	375.9	6.84e2	1.00	0.124	4.94	4.75	0.101	NO	100.0	0.0000015
16	13C4-PFOS	79.94	1.51e2	1.00	0.124	5.32	5.12	0.101	NO	100.0	0.0002251
17	13C9-PFNA	427.0	2.39e1	1.00	0.124	5.20	5.06	0.101	NO	100.0	0.0000000
18	Total PFBS	79.9	2.40e2		0.124	3.59		0.323	NO		
19	Total PFHxS	79.91	2.62e3		0.124	4.66		5.09	NO		
20	Total PFOA	368.9	3.21e3		0.124	4.82		1.42	NO		
21	Total PFOS	79.92	2.23e4		0.124	5.27		31.0	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.13	16200	16200	22.567
2	Total PFOS	5.02	5770	5770	8.0292
3	Total PFOS	4.93	301	301	0.41780

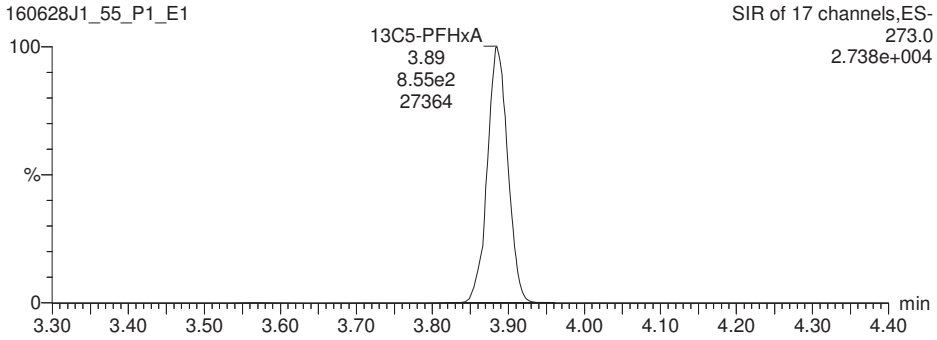
Reviewed: WJL 6/30/16 pw 6/30/16

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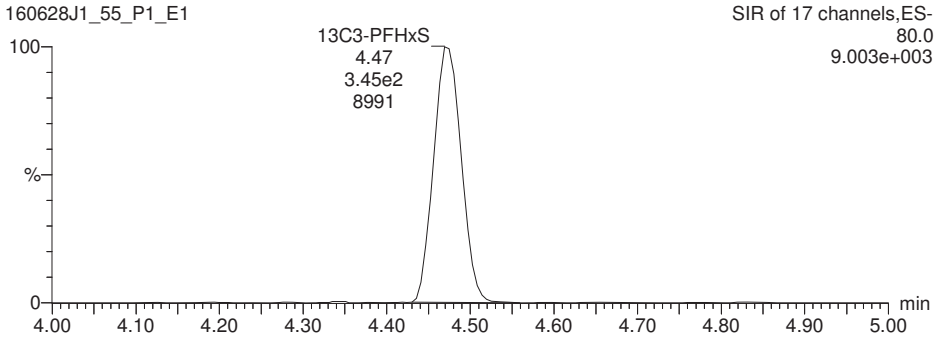
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Printed: Thursday, June 30, 2016 12:59:31 Pacific Daylight Time

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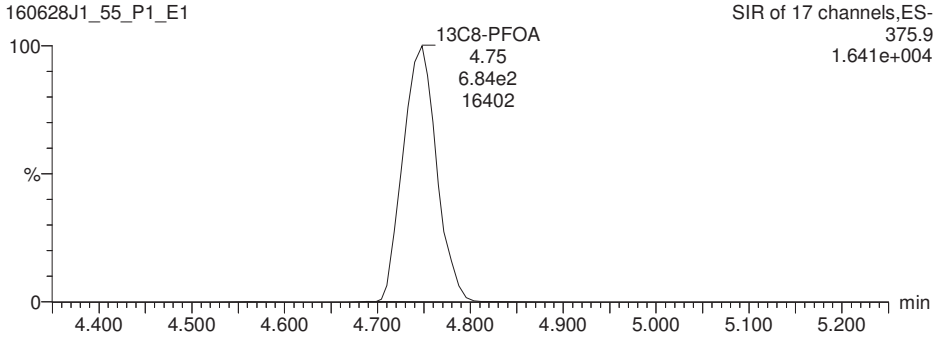
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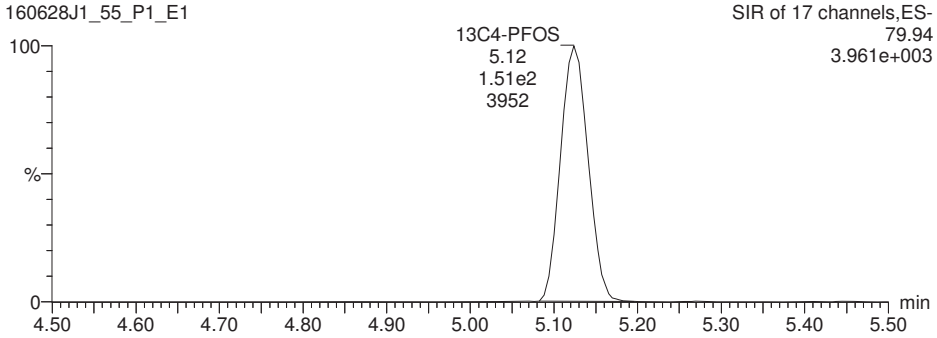
13C3-PFHxS



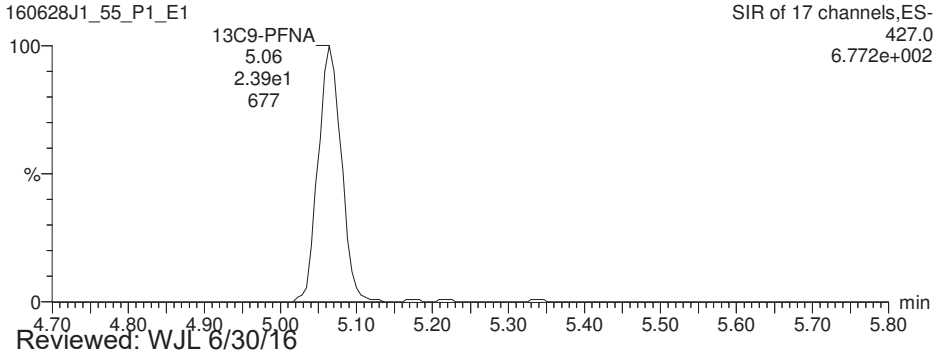
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_21.qld

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-03 OFPOL-MW-8-0616 0.125, Description: OFPOL-MW-8-0616, Name: 160624G3_21, Date: 25-Jun-2016, Time: 04:50:39

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec	
1	1	PFBS	299 > 79.7	6.421e3	4.712e3		0.123	3.13	167			*SEE 1:10 DILUTION
2	2	PFHpA	363 > 318.9	1.410e5	1.270e4		0.123	3.99	953			
3	3	PFHxS	398.9 > 79.6	4.745e4	2.848e3		0.123	4.11	1900	E*		
4	4	PFOA	413 > 368.7	1.230e5	1.456e4		0.123	4.42	1150			
5	5	PFOS	499 >79.9	1.011e5	3.681e3		0.123	4.84	5340	E*		
6	6	PFNA	463 > 418.8	2.590e4	1.250e4		0.123	4.78	270			
7	7	13C3-PFBS	302.0 > 98.8	4.712e3	1.927e4	0.236	0.123	3.13	106		104	
8	8	13C4-PFHpA	367.2 > 321.8	1.270e4	1.927e4	0.923	0.123	3.99	72.8		71.4	
9	9	18O2-PFHxS	403 > 102.6	2.848e3	7.049e3	0.471	0.123	4.11	87.3		85.7	*
10	10	13C2-PFOA	414.9 > 369.7	1.456e4	1.652e4	1.088	0.123	4.42	82.5		81.0	
11	11	13C8-PFOS	507 > 79.9	3.681e3	4.476e3	1.142	0.123	4.83	73.4		72.0	*
12	12	13C5-PFNA	468.2 > 422.9	1.250e4	1.757e4	1.008	0.123	4.78	71.9		70.6	
13	13	13C5-PFHxA	318.0 > 272.9	1.927e4	1.927e4	1.000	0.123	3.47	102		100	
14	14	13C3-PFHxS	401.9 > 79.9	7.049e3	7.049e3	1.000	0.123	4.11	102		100	
15	15	13C8-PFOA	421.3 > 376	1.652e4	1.652e4	1.000	0.123	4.42	102		100	
16	16	13C4-PFOS	503 > 79.9	4.476e3	4.476e3	1.000	0.123	4.84	102		100	
17	17	13C9-PFNA	472.2 > 426.9	1.757e4	1.757e4	1.000	0.123	4.78	102		100	
18	18	Total PFBS	299 > 79.7		4.712e3		0.123		171			
19	19	Total PFHxS	398.9 > 79.6		2.848e3		0.123		2340			
20	20	Total PFOA	413 > 368.7		1.456e4		0.123		1280			
21	21	Total PFOS	499 > 79.9		3.681e3		0.123		8300			

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_21.qld

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Printed: Wednesday, June 29, 2016 14:54:48 Pacific Daylight Time

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-03 OFPOL-MW-8-0616 0.125, Description: OFPOL-MW-8-0616, Name: 160624G3_21, Date: 25-Jun-2016, Time: 04:50:39

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	6420.818	4711.687	167.1
2	18	Total PFBS	299 > 79.7	3.02	139.610	4711.687	3.7

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	47454.918	2847.833	1898.5
2	19	Total PFHxS	398.9 > 79.6	4.01	9170.940	2847.833	435.7
3	19	Total PFHxS	398.9 > 79.6	3.90	42.171	2847.833	2.1

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	122990.250	14558.864	1152.4
2	20	Total PFOA	413 > 368.7	4.31	13695.254	14558.864	128.2
3	20	Total PFOA	413 > 368.7	4.19	272.197	14558.864	2.5

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	21	Total PFOS	499 >79.9	4.75	15895.831	3681.085	932.3
2	21	Total PFOS	499 >79.9	4.72	32961.613	3681.085	1887.8
3	21	Total PFOS	499 >79.9	4.61	2331.552	3681.085	139.5
4	5	PFOS	499 >79.9	4.84	101079.672	3681.085	5336.4

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

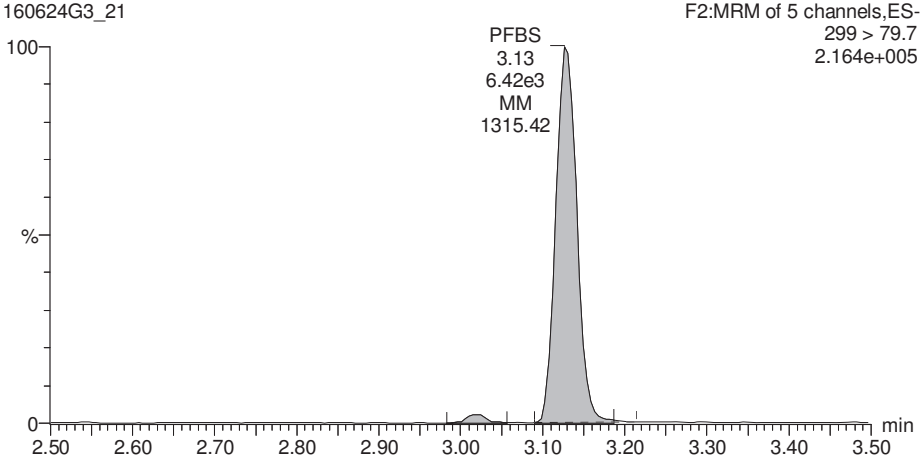
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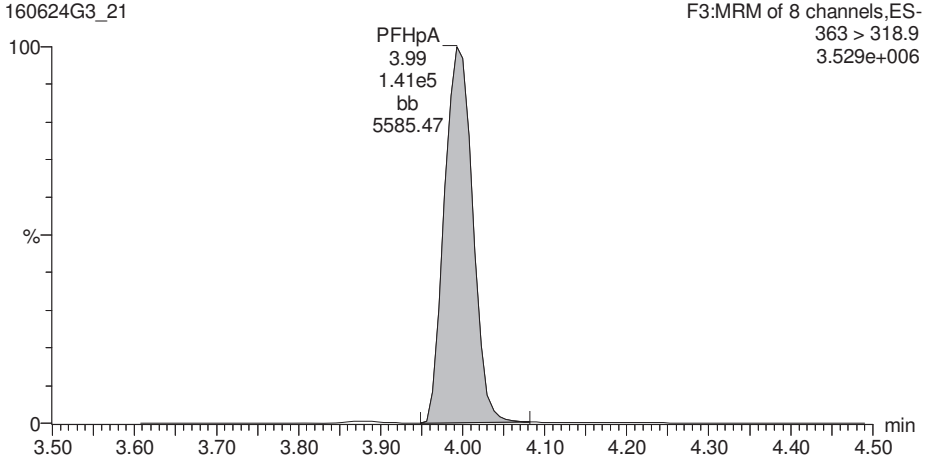
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ID: 1600783-03 OFPOL-MW-8-0616 0.125, Description: OFPOL-MW-8-0616, Name: 160624G3_21, Date: 25-Jun-2016, Time: 04:50:39, Instrument: , Lab: , User:

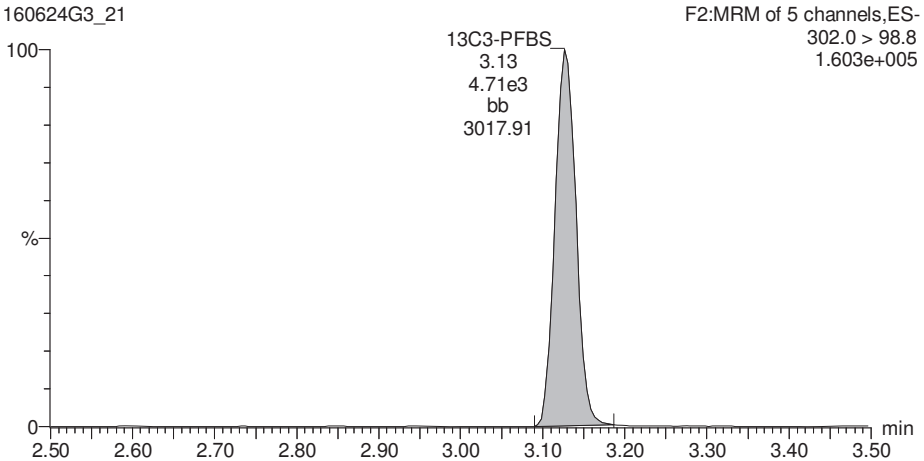
Total PFBS



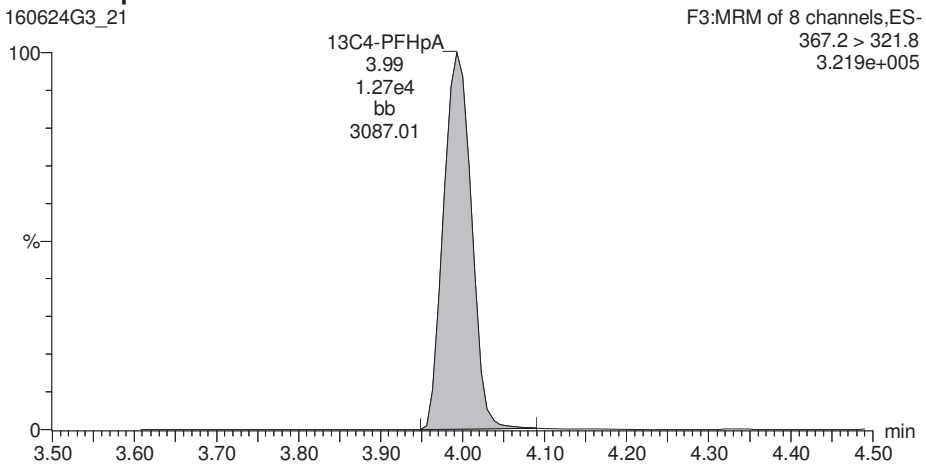
PFHpA



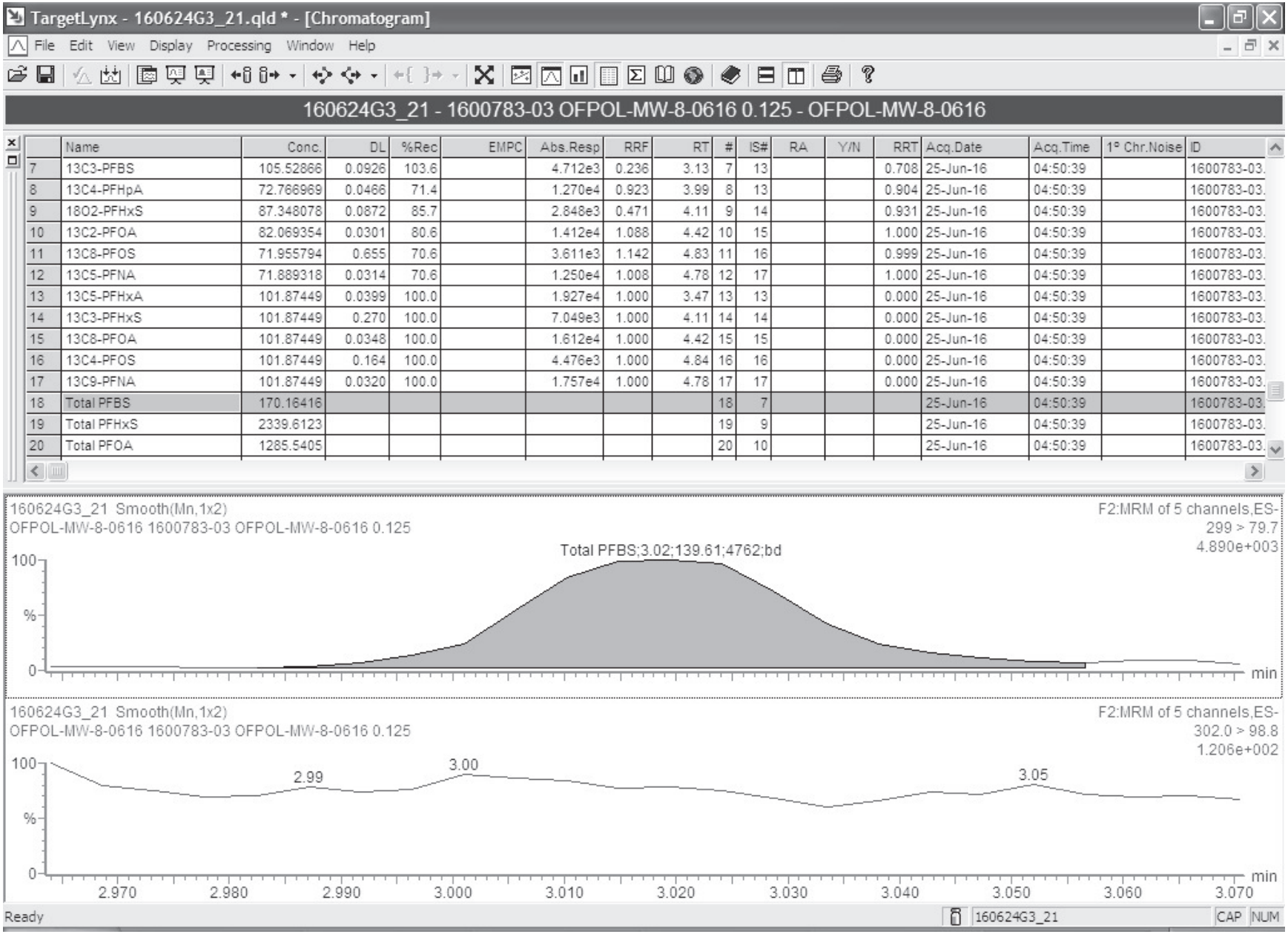
13C3-PFBS



13C4-PFHpA



Reviewed: WJL 6/30/16 BR 6/29/16



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7	13C3-PFBS	105.52866	0.0926	103.6		4.712e3	0.236	3.13	7	13			0.708	25-Jun-16	04:50:39		1600783-03.
8	13C4-PFHpA	72.766969	0.0466	71.4		1.270e4	0.923	3.99	8	13			0.904	25-Jun-16	04:50:39		1600783-03.
9	18O2-PFHxS	87.348078	0.0872	85.7		2.848e3	0.471	4.11	9	14			0.931	25-Jun-16	04:50:39		1600783-03.
10	13C2-PFOA	82.069354	0.0301	80.6		1.412e4	1.088	4.42	10	15			1.000	25-Jun-16	04:50:39		1600783-03.
11	13C8-PFOS	71.955794	0.655	70.6		3.611e3	1.142	4.83	11	16			0.999	25-Jun-16	04:50:39		1600783-03.
12	13C5-PFNA	71.889318	0.0314	70.6		1.250e4	1.008	4.78	12	17			1.000	25-Jun-16	04:50:39		1600783-03.
13	13C5-PFHxA	101.87449	0.0399	100.0		1.927e4	1.000	3.47	13	13			0.000	25-Jun-16	04:50:39		1600783-03.
14	13C3-PFHxS	101.87449	0.270	100.0		7.049e3	1.000	4.11	14	14			0.000	25-Jun-16	04:50:39		1600783-03.
15	13C8-PFOA	101.87449	0.0348	100.0		1.612e4	1.000	4.42	15	15			0.000	25-Jun-16	04:50:39		1600783-03.
16	13C4-PFOS	101.87449	0.164	100.0		4.476e3	1.000	4.84	16	16			0.000	25-Jun-16	04:50:39		1600783-03.
17	13C9-PFNA	101.87449	0.0320	100.0		1.757e4	1.000	4.78	17	17			0.000	25-Jun-16	04:50:39		1600783-03.
18	Total PFBS	170.16416							18	7				25-Jun-16	04:50:39		1600783-03.
19	Total PFHxS	2339.6123							19	9				25-Jun-16	04:50:39		1600783-03.
20	Total PFOA	1285.5405							20	10				25-Jun-16	04:50:39		1600783-03.

Reviewed: WJL 6/30/16 BR 6/29/16

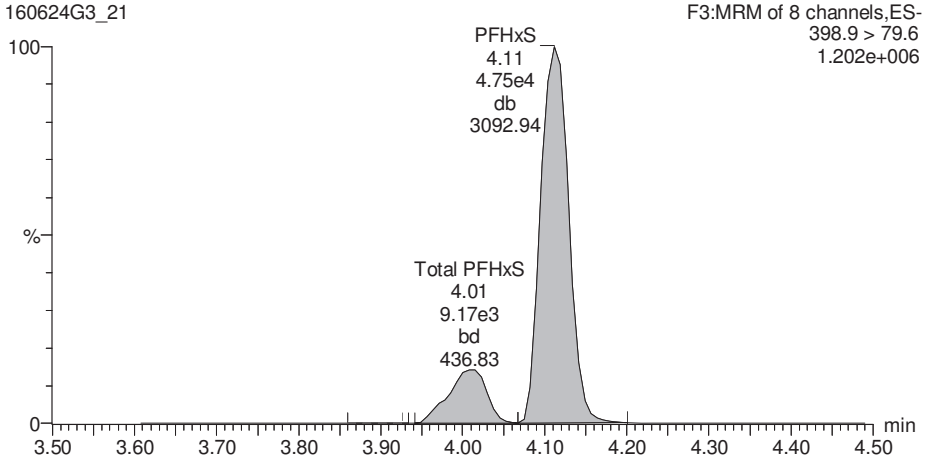
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_21.qld

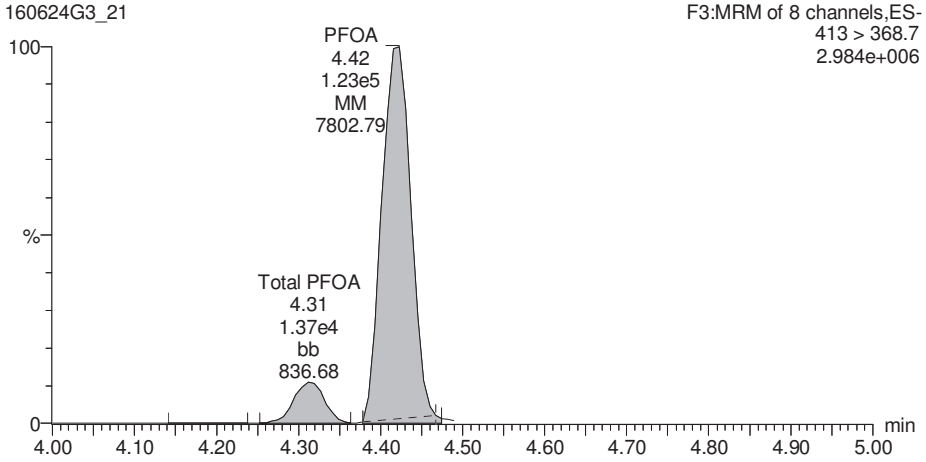
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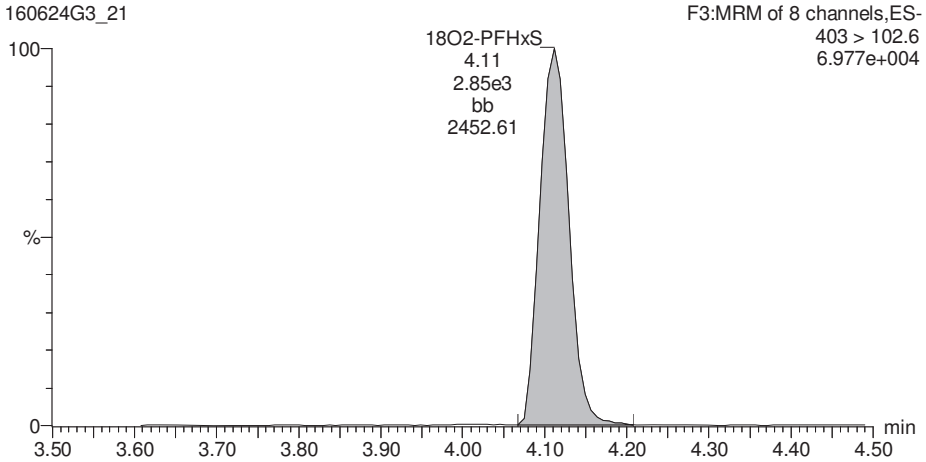
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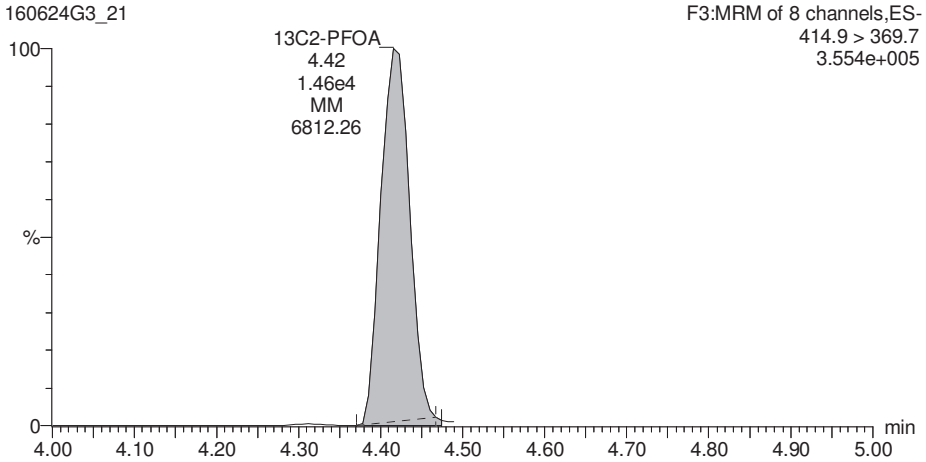
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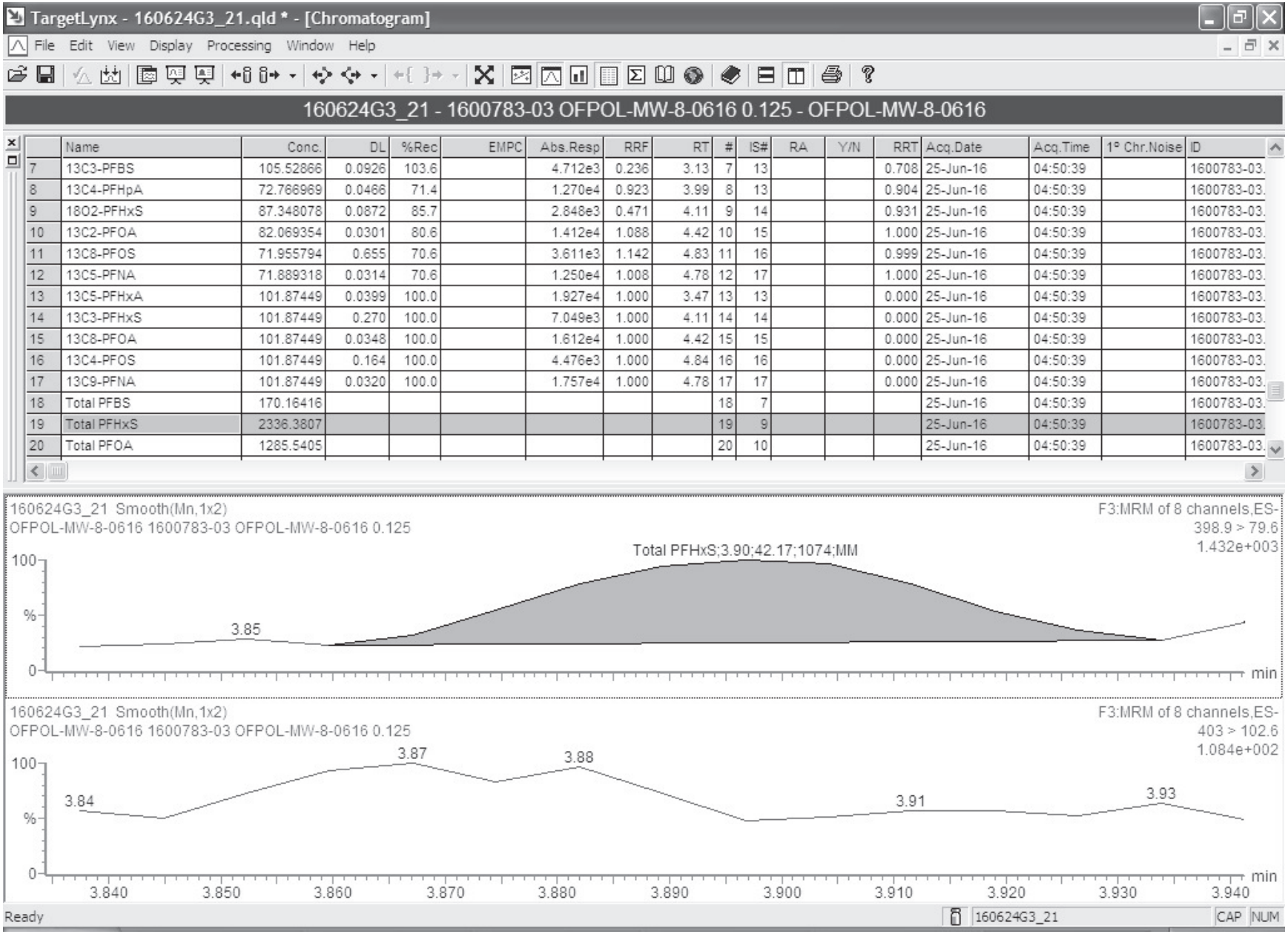
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 BR 6/29/16



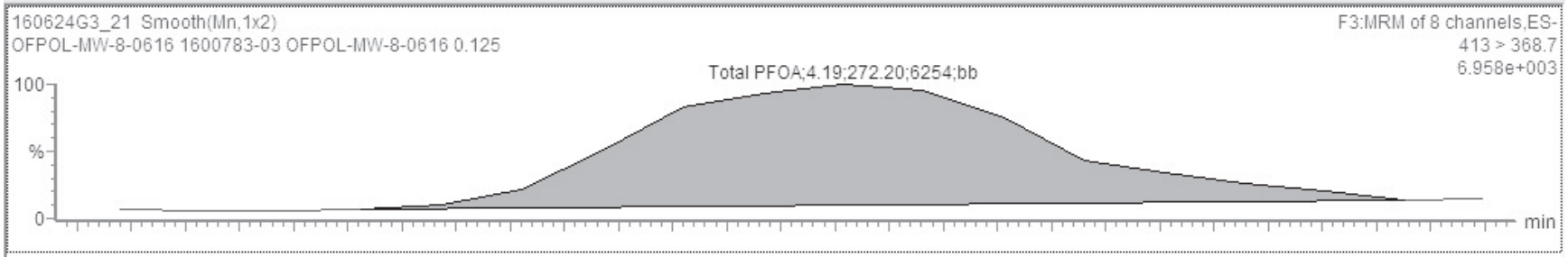
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7	13C3-PFBS	105.52866	0.0926	103.6		4.712e3	0.236	3.13	7	13			0.708	25-Jun-16	04:50:39		1600783-03.
8	13C4-PFHpA	72.766969	0.0466	71.4		1.270e4	0.923	3.99	8	13			0.904	25-Jun-16	04:50:39		1600783-03.
9	18O2-PFHxS	87.348078	0.0872	85.7		2.848e3	0.471	4.11	9	14			0.931	25-Jun-16	04:50:39		1600783-03.
10	13C2-PFOA	82.069354	0.0301	80.6		1.412e4	1.088	4.42	10	15			1.000	25-Jun-16	04:50:39		1600783-03.
11	13C8-PFOS	71.955794	0.655	70.6		3.611e3	1.142	4.83	11	16			0.999	25-Jun-16	04:50:39		1600783-03.
12	13C5-PFNA	71.889318	0.0314	70.6		1.250e4	1.008	4.78	12	17			1.000	25-Jun-16	04:50:39		1600783-03.
13	13C5-PFHxA	101.87449	0.0399	100.0		1.927e4	1.000	3.47	13	13			0.000	25-Jun-16	04:50:39		1600783-03.
14	13C3-PFHxS	101.87449	0.270	100.0		7.049e3	1.000	4.11	14	14			0.000	25-Jun-16	04:50:39		1600783-03.
15	13C8-PFOA	101.87449	0.0348	100.0		1.612e4	1.000	4.42	15	15			0.000	25-Jun-16	04:50:39		1600783-03.
16	13C4-PFOS	101.87449	0.164	100.0		4.476e3	1.000	4.84	16	16			0.000	25-Jun-16	04:50:39		1600783-03.
17	13C9-PFNA	101.87449	0.0320	100.0		1.757e4	1.000	4.78	17	17			0.000	25-Jun-16	04:50:39		1600783-03.
18	Total PFBS	170.16416							18	7				25-Jun-16	04:50:39		1600783-03.
19	Total PFHxS	2336.3807							19	9				25-Jun-16	04:50:39		1600783-03.
20	Total PFOA	1285.5405							20	10				25-Jun-16	04:50:39		1600783-03.

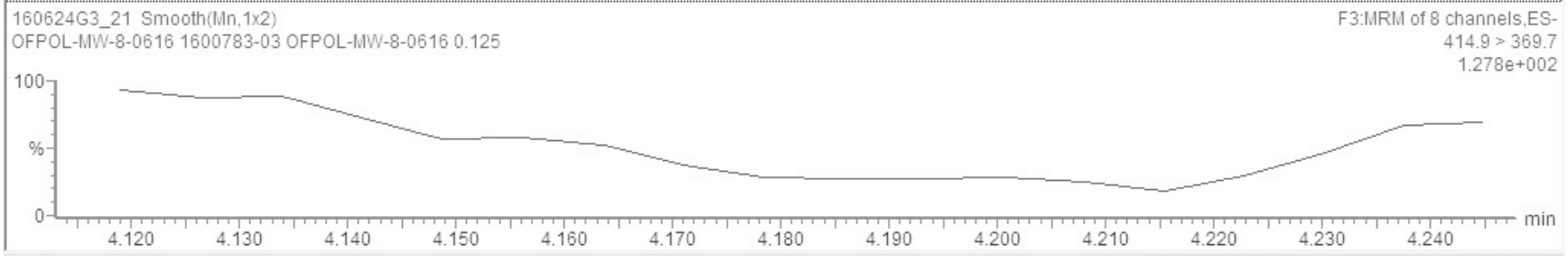
TargetLynx - 160624G3_21.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_21 - 1600783-03 OFPOL-MW-8-0616 0.125 - OFPOL-MW-8-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	105.52866	0.0926	103.6		4.712e3	0.236	3.13	7	13			0.708	25-Jun-16	04:50:39		1600783-03.
8	13C4-PFHpA	72.766969	0.0466	71.4		1.270e4	0.923	3.99	8	13			0.904	25-Jun-16	04:50:39		1600783-03.
9	18O2-PFHxS	87.348078	0.0872	85.7		2.848e3	0.471	4.11	9	14			0.931	25-Jun-16	04:50:39		1600783-03.
10	13C2-PFOA	84.601514	0.0301	83.0		1.456e4	1.088	4.42	10	15			1.000	25-Jun-16	04:50:39		1600783-03.
11	13C8-PFOS	71.955794	0.655	70.6		3.611e3	1.142	4.83	11	16			0.999	25-Jun-16	04:50:39		1600783-03.
12	13C5-PFNA	71.889318	0.0314	70.6		1.250e4	1.008	4.78	12	17			1.000	25-Jun-16	04:50:39		1600783-03.
13	13C5-PFHxA	101.87449	0.0399	100.0		1.927e4	1.000	3.47	13	13			0.000	25-Jun-16	04:50:39		1600783-03.
14	13C3-PFHxS	101.87449	0.270	100.0		7.049e3	1.000	4.11	14	14			0.000	25-Jun-16	04:50:39		1600783-03.
15	13C8-PFOA	101.87449	0.0348	100.0		1.612e4	1.000	4.42	15	15			0.000	25-Jun-16	04:50:39		1600783-03.
16	13C4-PFOS	101.87449	0.164	100.0		4.476e3	1.000	4.84	16	16			0.000	25-Jun-16	04:50:39		1600783-03.
17	13C9-PFNA	101.87449	0.0320	100.0		1.757e4	1.000	4.78	17	17			0.000	25-Jun-16	04:50:39		1600783-03.
18	Total PFBS	170.16416							18	7				25-Jun-16	04:50:39		1600783-03.
19	Total PFHxS	2336.3807							19	9				25-Jun-16	04:50:39		1600783-03.
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Ready 160624G3_21 CAP NUM

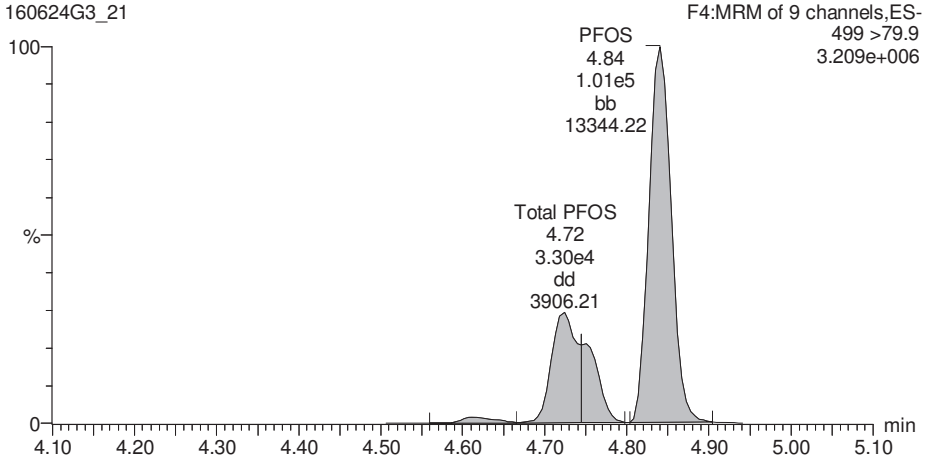
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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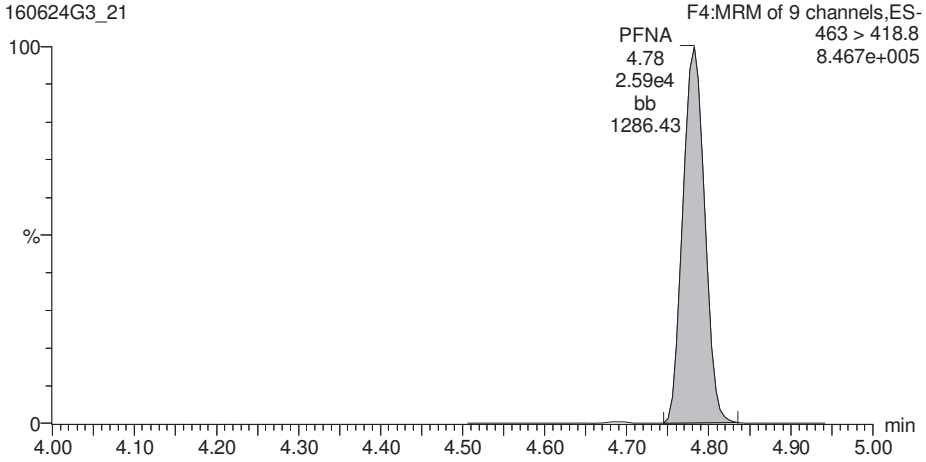
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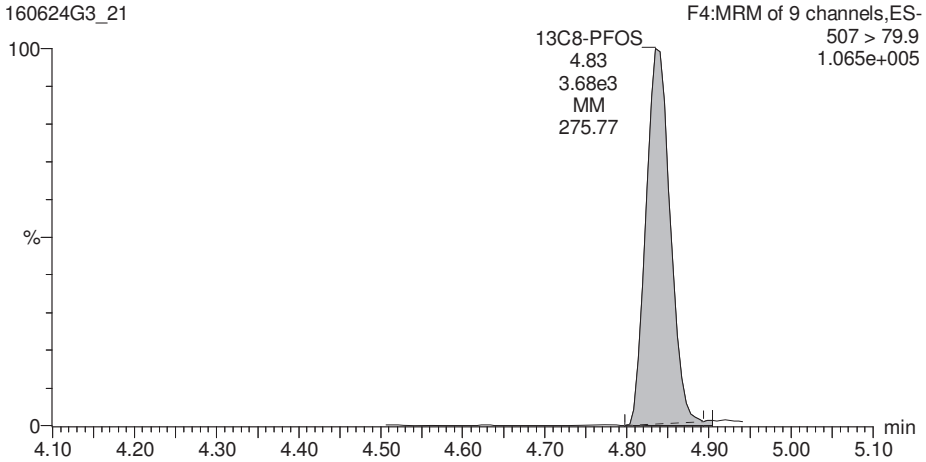
Total PFOS



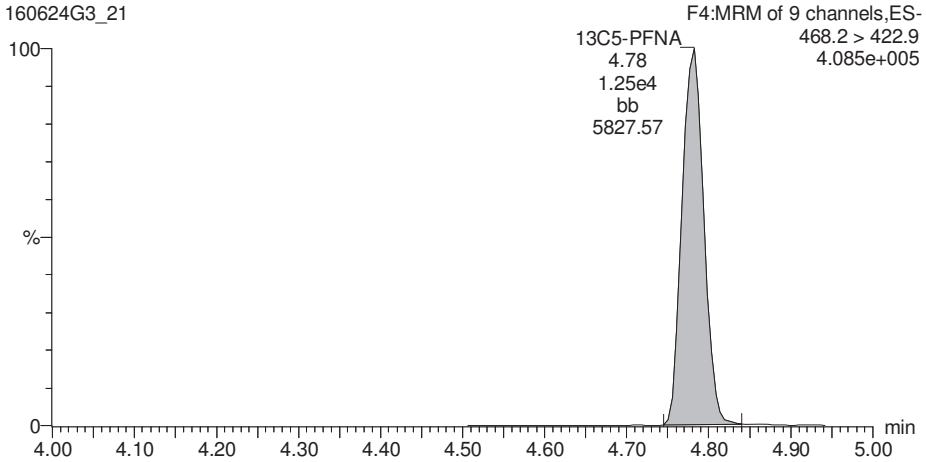
PFNA



13C8-PFOS



13C5-PFNA



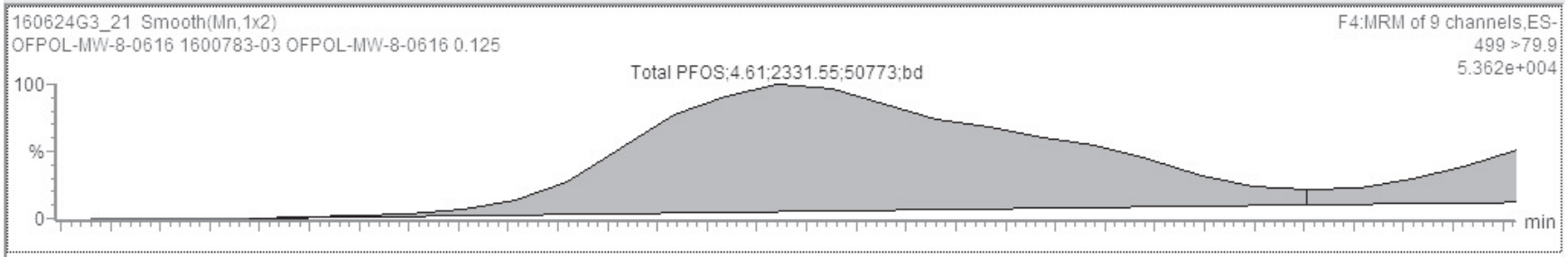
Reviewed: WJL 6/30/16 BR 6/29/16

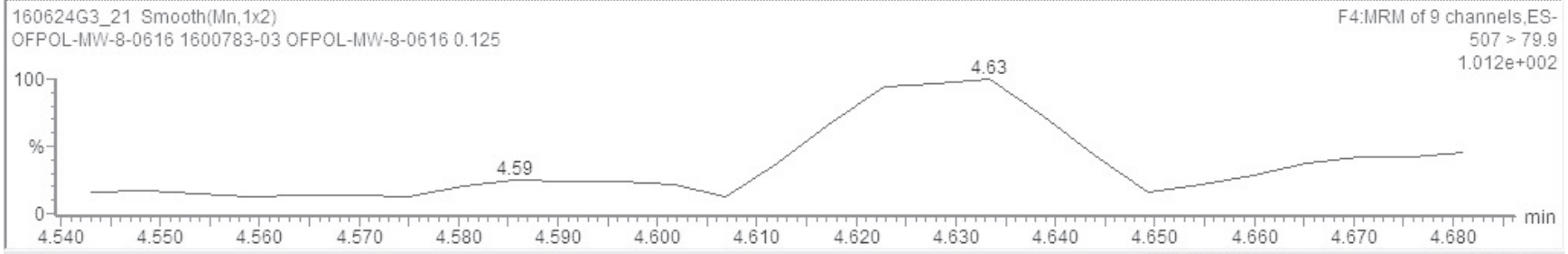
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File Edit View Display Processing Window Help

160624G3_21 - 1600783-03 OFPOL-MW-8-0616 0.125 - OFPOL-MW-8-0616

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7	13C3-PFBS	105.52866	0.0926	103.6		4.712e3	0.236	3.13	7	13			0.708	25-Jun-16	04:50:39		1600783-03.
8	13C4-PFHpA	72.766969	0.0466	71.4		1.270e4	0.923	3.99	8	13			0.904	25-Jun-16	04:50:39		1600783-03.
9	18O2-PFHxS	87.348078	0.0872	85.7		2.848e3	0.471	4.11	9	14			0.931	25-Jun-16	04:50:39		1600783-03.
10	13C2-PFOA	84.601514	0.0301	83.0		1.456e4	1.088	4.42	10	15			1.000	25-Jun-16	04:50:39		1600783-03.
11	13C8-PFOS	73.356368	0.655	72.0		3.681e3	1.142	4.83	11	16			0.999	25-Jun-16	04:50:39		1600783-03.
12	13C5-PFNA	71.889318	0.0314	70.6		1.250e4	1.008	4.78	12	17			1.000	25-Jun-16	04:50:39		1600783-03.
13	13C5-PFHxA	101.87449	0.0399	100.0		1.927e4	1.000	3.47	13	13			0.000	25-Jun-16	04:50:39		1600783-03.
14	13C3-PFHxS	101.87449	0.270	100.0		7.049e3	1.000	4.11	14	14			0.000	25-Jun-16	04:50:39		1600783-03.
15	13C8-PFOA	101.87449	0.0348	100.0		1.612e4	1.000	4.42	15	15			0.000	25-Jun-16	04:50:39		1600783-03.
16	13C4-PFOS	101.87449	0.164	100.0		4.476e3	1.000	4.84	16	16			0.000	25-Jun-16	04:50:39		1600783-03.
17	13C9-PFNA	101.87449	0.0320	100.0		1.757e4	1.000	4.78	17	17			0.000	25-Jun-16	04:50:39		1600783-03.
18	Total PFBS	170.16416							18	7				25-Jun-16	04:50:39		1600783-03.
19	Total PFHxS	2336.3807							19	9				25-Jun-16	04:50:39		1600783-03.
20	Total PFOA	1283.1087							20	10				25-Jun-16	04:50:39		1600783-03.





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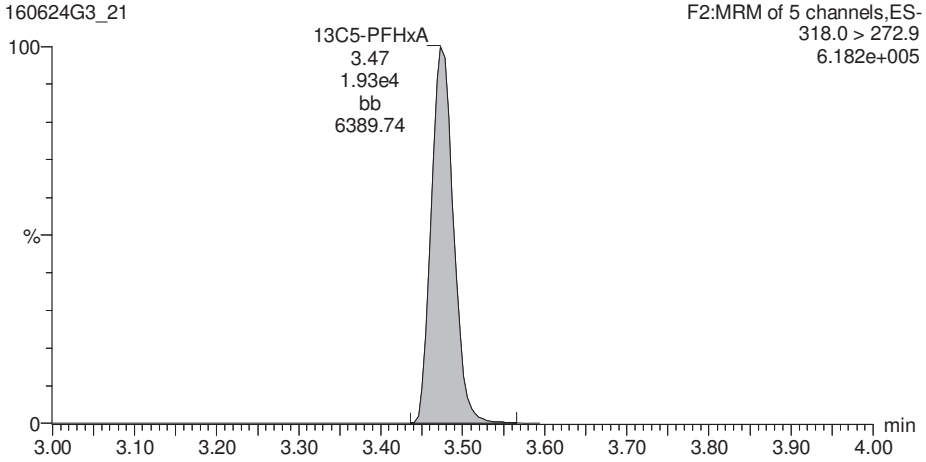
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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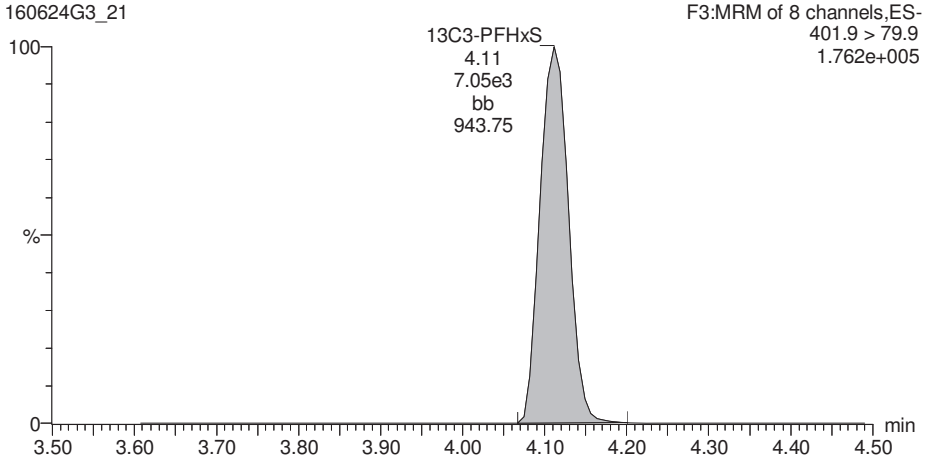
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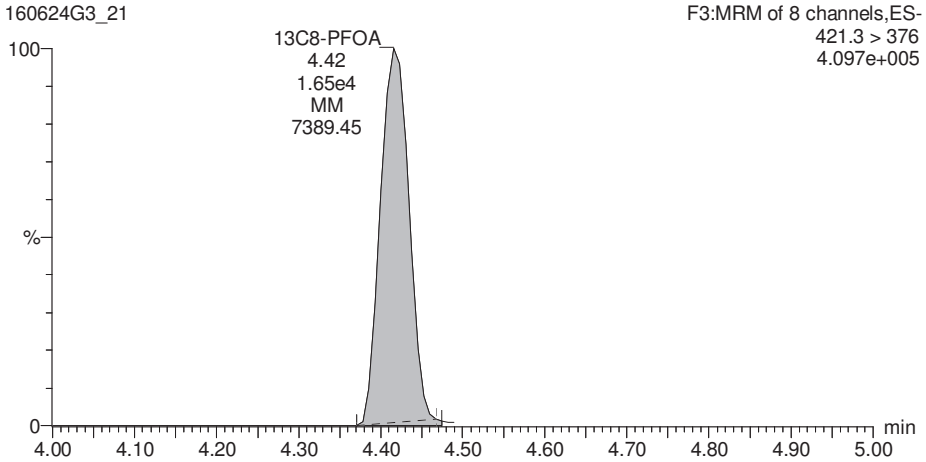
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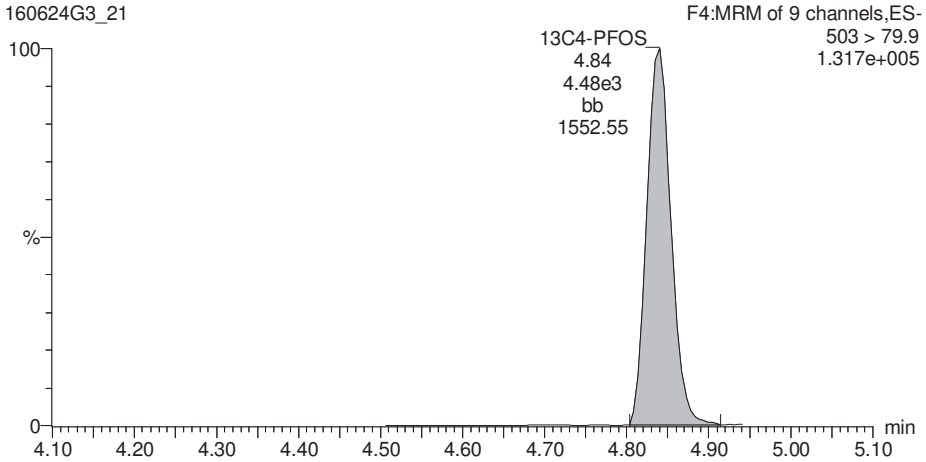
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/29/16

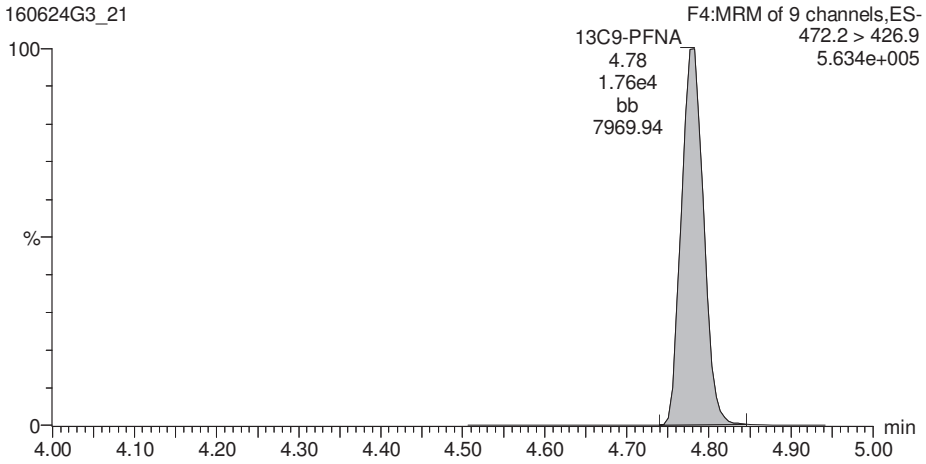
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16

Vista Analytical Laboratory Q1

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Name: 160628J1_59.wiff, Date: 29-Jun-2016, Time: 03:44:58, ID: 1600783-03@10x, Description: OFPOL-MW-8-0616

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1	3	PFHxS	79.91	1.86e3	1.39e2		0.123	4.47	2.12	
2	5	PFOS	79.92	2.96e3	7.54e1		0.123	5.13	5.85	
3	9	18O2-PFHxS	102.9	1.39e2	5.92e2	0.307	0.123	4.47	0.0780	76.6
4	11	13C8-PFOS	79.93	7.54e1	1.02e2	1.026	0.123	5.13	0.0734	72.0
5	14	13C3-PFHxS	80.0	5.92e2	5.92e2	1.000	0.123	4.47	0.102	100.0
6	16	13C4-PFOS	79.94	1.02e2	1.02e2	1.000	0.123	5.12	0.102	100.0
7	19	Total PFHxS	79.91		1.39e2		0.123		2.47	
8	21	Total PFOS	79.92		7.54e1		0.123		9.02	

Target = ug/L

Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_59.qld

Last Altered: Thursday, June 30, 2016 10:17:17 Pacific Daylight Time
Printed: Thursday, June 30, 2016 11:37:08 Pacific Daylight Time

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_59.wiff, Date: 29-Jun-2016, Time: 03:44:58, ID: 1600783-03@10x, Description: OFPOL-MW-8-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	2.10e2	6.80e2	0.155
2	18	Total PFBS	79.9	3.35	4.82e0	6.80e2	0.00356

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	1.86e3	1.39e2	2.12
2	19	Total PFHxS	79.91	4.37	2.38e2	1.39e2	0.271
3	19	Total PFHxS	79.91	4.34	7.02e1	1.39e2	0.0800
4	19	Total PFHxS	79.91	4.27	5.10e0	1.39e2	0.00581

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	368.9	4.75	4.23e3	8.02e2	1.27
2	20	Total PFOA	368.9	4.65	4.34e2	8.02e2	0.130

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	2.96e3	7.54e1	5.85
2	21	Total PFOS	79.92	5.02	1.47e3	7.54e1	2.90
3	21	Total PFOS	79.92	4.93	1.36e2	7.54e1	0.269

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q2

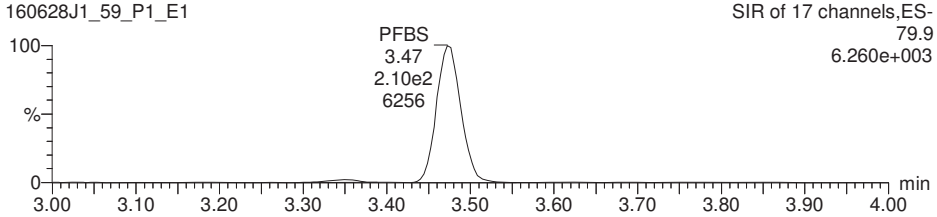
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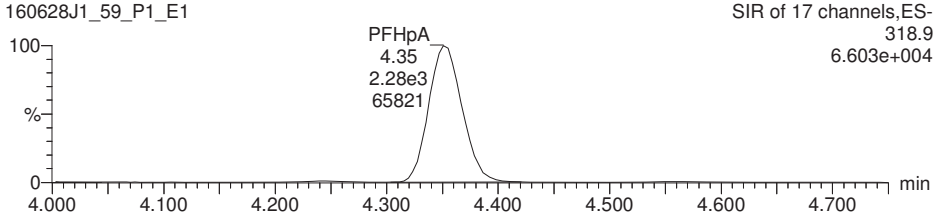
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Name: 160628J1_59.wiff, Date: 29-Jun-2016, Time: 03:44:58, ID: 1600783-03@10x, Description: OFPOL-MW-8-0616

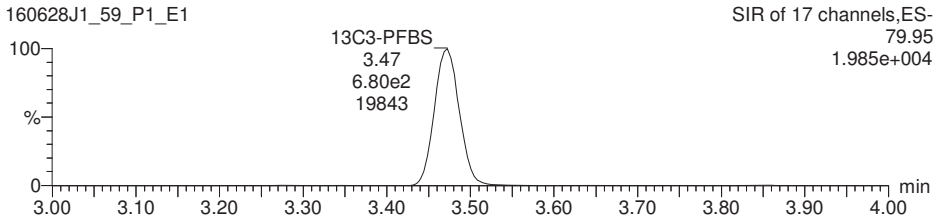
PFBS



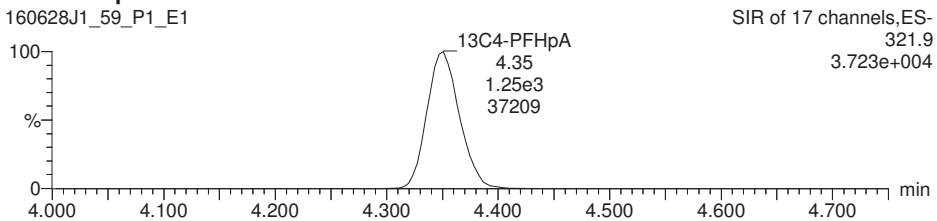
PFHpA



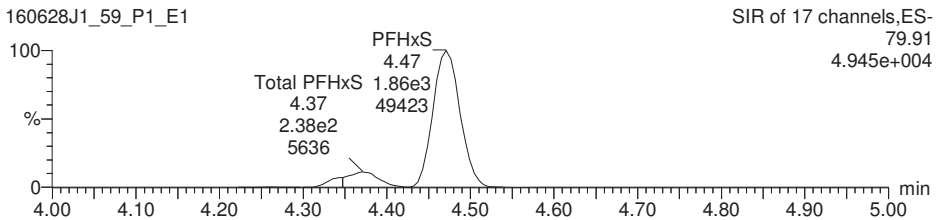
13C3-PFBS



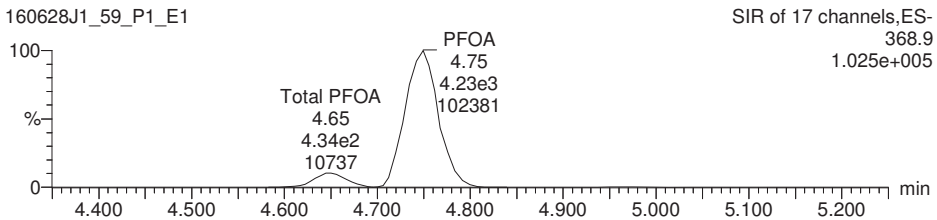
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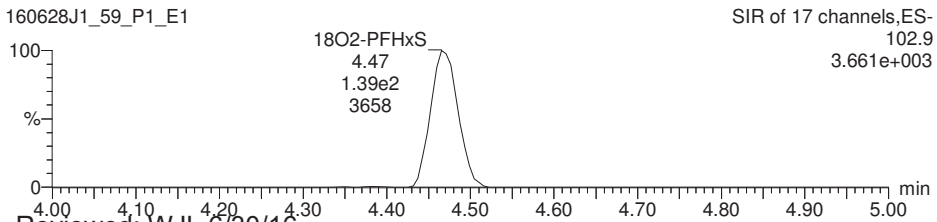
PFHxS



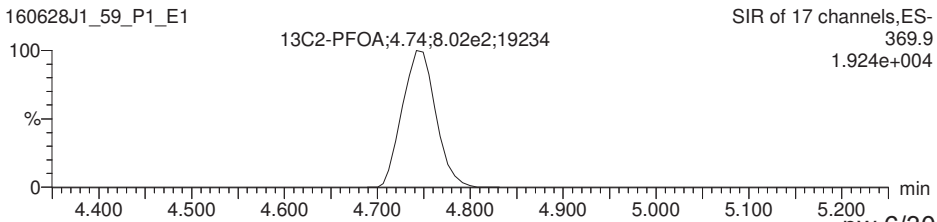
PFOA



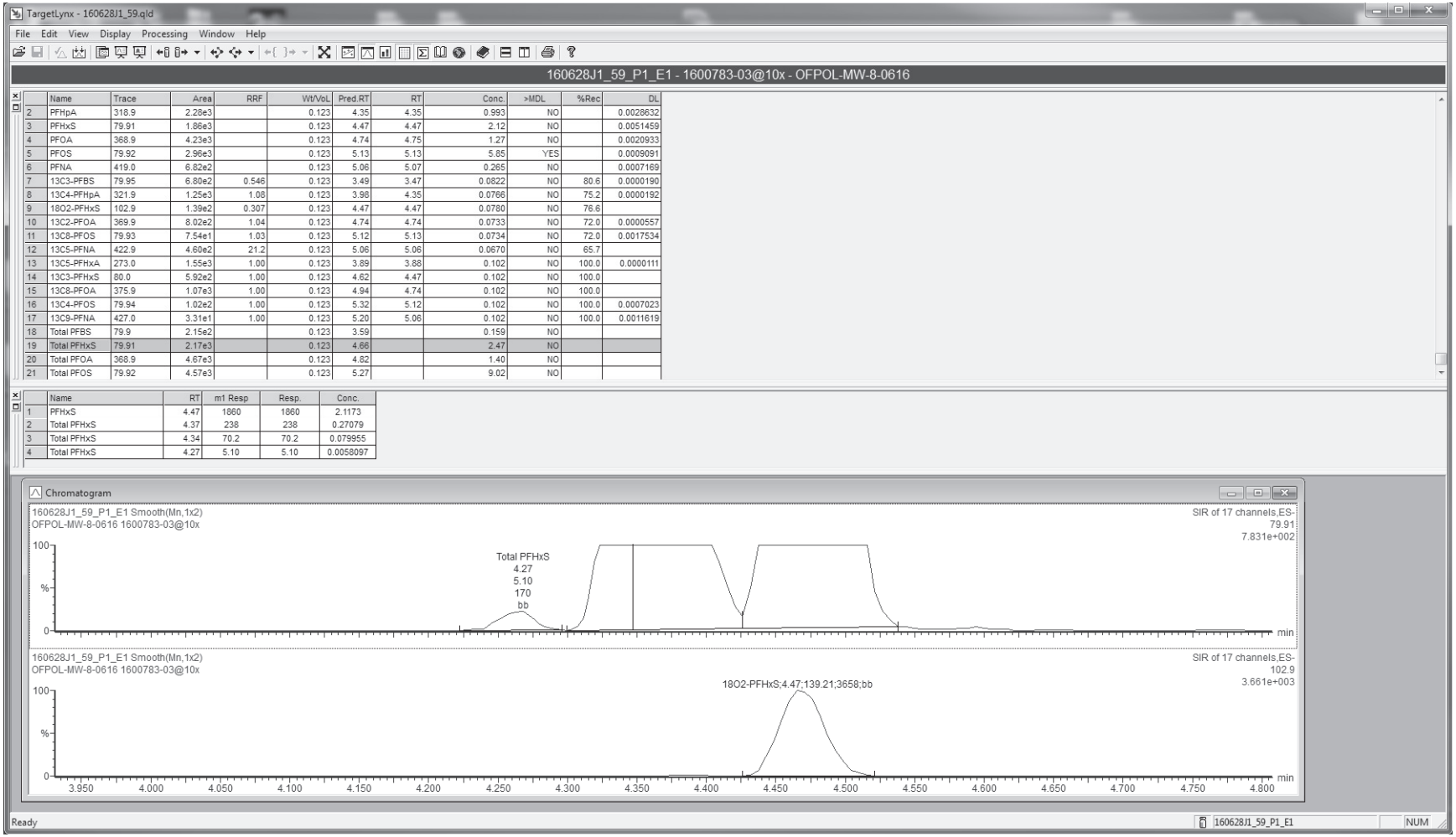
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	2.28e3		0.123	4.35	4.35	0.993	NO		0.0028632
3	PFHxS	79.91	1.86e3		0.123	4.47	4.47	2.12	NO		0.0051459
4	PFOA	368.9	4.23e3		0.123	4.74	4.75	1.27	NO		0.0020933
5	PFOS	79.92	2.96e3		0.123	5.13	5.13	5.85	YES		0.0009091
6	PFNA	419.0	6.82e2		0.123	5.06	5.07	0.265	NO		0.0007169
7	13C3-PFBS	79.95	6.80e2	0.546	0.123	3.49	3.47	0.0822	NO	80.6	0.0000190
8	13C4-PFHpA	321.9	1.25e3	1.08	0.123	3.98	4.35	0.0766	NO	75.2	0.0000192
9	18O2-PFHxS	102.9	1.39e2	0.307	0.123	4.47	4.47	0.0780	NO	76.6	
10	13C2-PFOA	369.9	8.02e2	1.04	0.123	4.74	4.74	0.0733	NO	72.0	0.0000557
11	13C8-PFOS	79.93	7.54e1	1.03	0.123	5.12	5.13	0.0734	NO	72.0	0.0017534
12	13C5-PFNA	422.9	4.60e2	21.2	0.123	5.06	5.06	0.0670	NO	65.7	
13	13C5-PFHxA	273.0	1.55e3	1.00	0.123	3.89	3.88	0.102	NO	100.0	0.0000111
14	13C3-PFHxS	80.0	5.92e2	1.00	0.123	4.62	4.47	0.102	NO	100.0	
15	13C8-PFOA	375.9	1.07e3	1.00	0.123	4.94	4.74	0.102	NO	100.0	
16	13C4-PFOS	79.94	1.02e2	1.00	0.123	5.32	5.12	0.102	NO	100.0	0.0007023
17	13C9-PFNA	427.0	3.31e1	1.00	0.123	5.20	5.06	0.102	NO	100.0	0.0011619
18	Total PFBS	79.9	2.15e2		0.123	3.59		0.159	NO		
19	Total PFHxS	79.91	2.17e3		0.123	4.66		2.47	NO		
20	Total PFOA	368.9	4.67e3		0.123	4.82		1.40	NO		
21	Total PFOS	79.92	4.57e3		0.123	5.27		9.02	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	1860	1860	2.1173
2	Total PFHxS	4.37	238	238	0.27079
3	Total PFHxS	4.34	70.2	70.2	0.079955
4	Total PFHxS	4.27	5.10	5.10	0.0058097

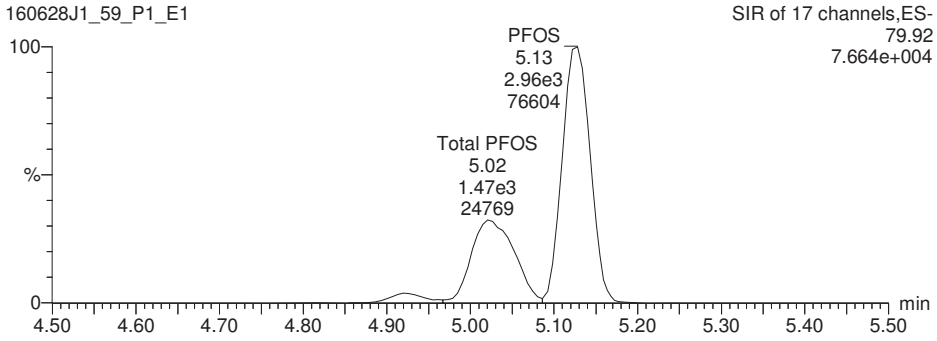
Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_59.qld

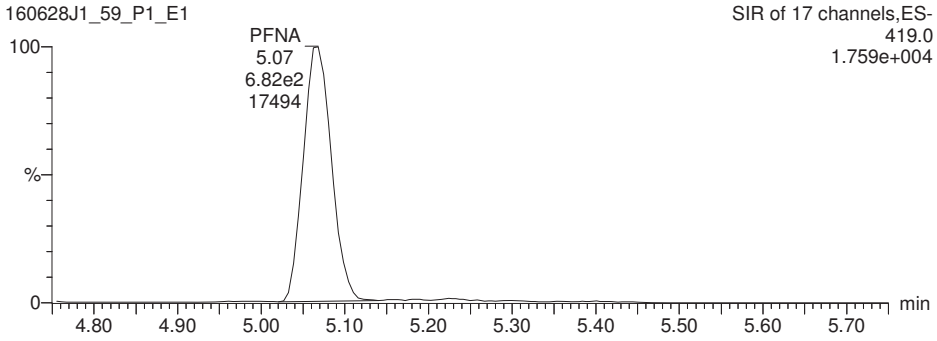
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Name: 160628J1_59.wiff, Date: 29-Jun-2016, Time: 03:44:58, ID: 1600783-03@10x, Description: OFPOL-MW-8-0616

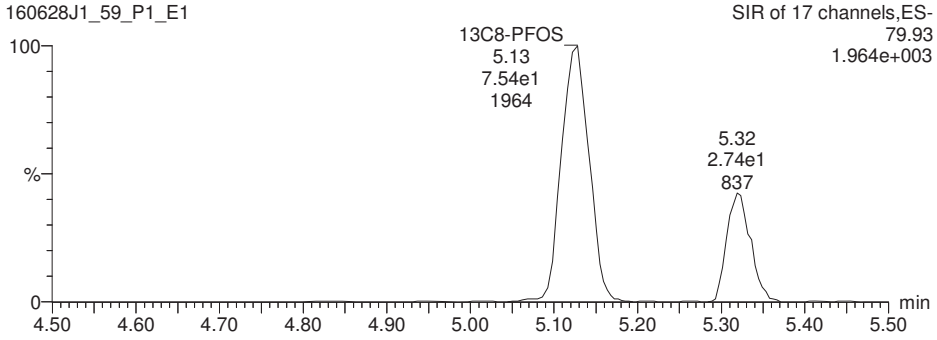
PFOS



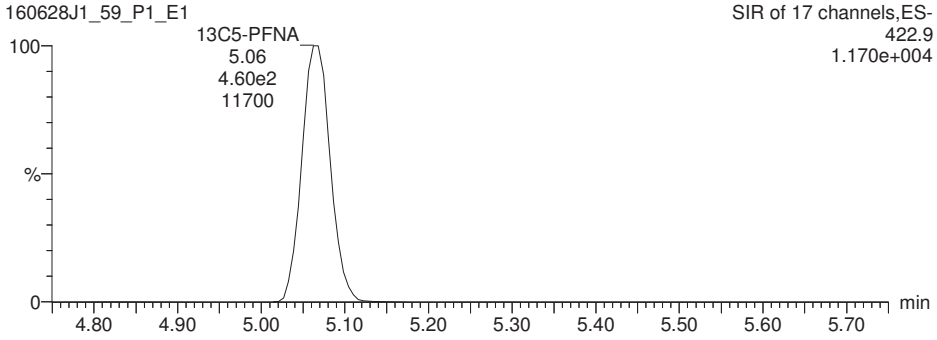
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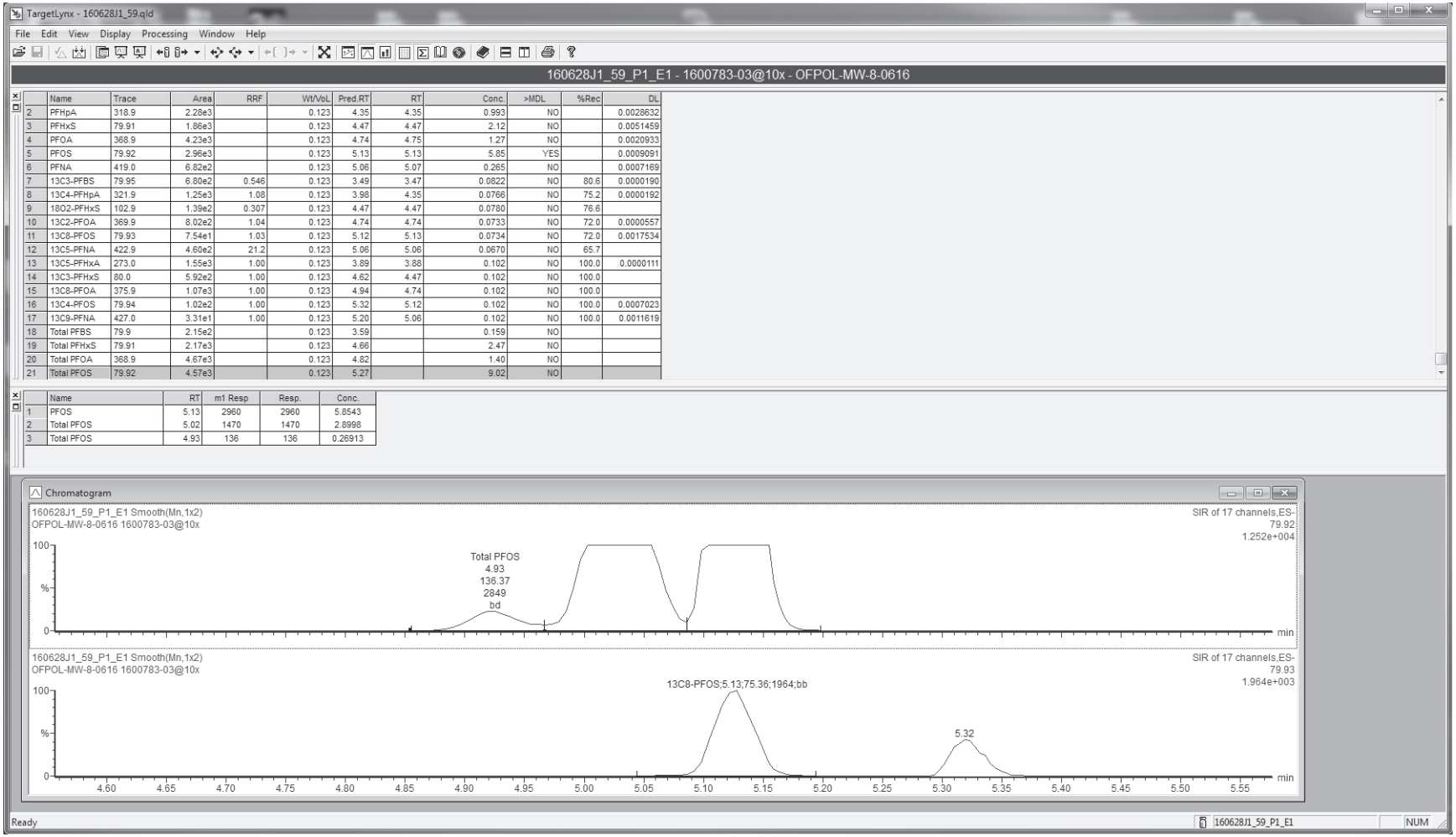
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	2.28e3		0.123	4.35	4.35	0.993	NO		0.0028632
3	PFHxS	79.91	1.86e3		0.123	4.47	4.47	2.12	NO		0.0051459
4	PFOA	368.9	4.23e3		0.123	4.74	4.75	1.27	NO		0.0020933
5	PFOS	79.92	2.96e3		0.123	5.13	5.13	5.85	YES		0.0009091
6	PFNA	419.0	6.82e2		0.123	5.06	5.07	0.265	NO		0.0007169
7	13C3-PFBS	79.95	6.80e2	0.546	0.123	3.49	3.47	0.0822	NO	80.6	0.0000190
8	13C4-PFHpA	321.9	1.25e3	1.08	0.123	3.98	4.35	0.0766	NO	75.2	0.0000192
9	18O2-PFHxS	102.9	1.39e2	0.307	0.123	4.47	4.47	0.0780	NO	76.6	
10	13C2-PFOA	369.9	8.02e2	1.04	0.123	4.74	4.74	0.0733	NO	72.0	0.0000557
11	13C8-PFOS	79.93	7.54e1	1.03	0.123	5.12	5.13	0.0734	NO	72.0	0.0017534
12	13C5-PFNA	422.9	4.60e2	21.2	0.123	5.06	5.06	0.0670	NO	65.7	
13	13C5-PFHxA	273.0	1.55e3	1.00	0.123	3.89	3.88	0.102	NO	100.0	0.0000111
14	13C3-PFHxS	80.0	5.92e2	1.00	0.123	4.62	4.47	0.102	NO	100.0	
15	13C8-PFOA	375.9	1.07e3	1.00	0.123	4.94	4.74	0.102	NO	100.0	
16	13C4-PFOS	79.94	1.02e2	1.00	0.123	5.32	5.12	0.102	NO	100.0	0.0007023
17	13C9-PFNA	427.0	3.31e1	1.00	0.123	5.20	5.06	0.102	NO	100.0	0.0011619
18	Total PFBS	79.9	2.15e2		0.123	3.59		0.159	NO		
19	Total PFHxS	79.91	2.17e3		0.123	4.66		2.47	NO		
20	Total PFOA	368.9	4.67e3		0.123	4.82		1.40	NO		
21	Total PFOS	79.92	4.57e3		0.123	5.27		9.02	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.13	2960	2960	5.8543
2	Total PFOS	5.02	1470	1470	2.8998
3	Total PFOS	4.93	136	136	0.26913

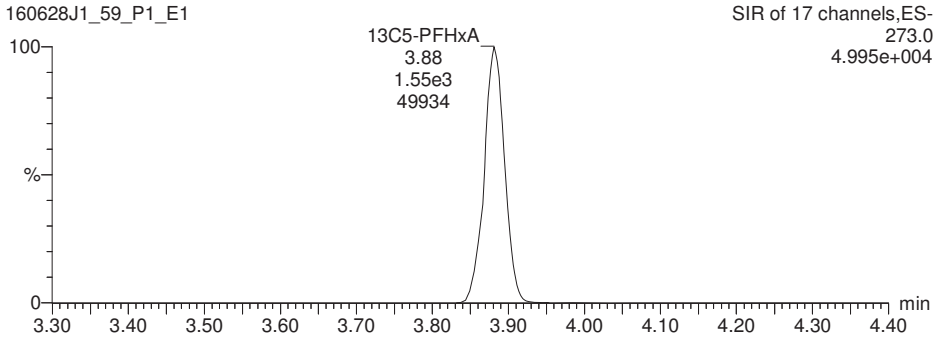
Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_59.qld

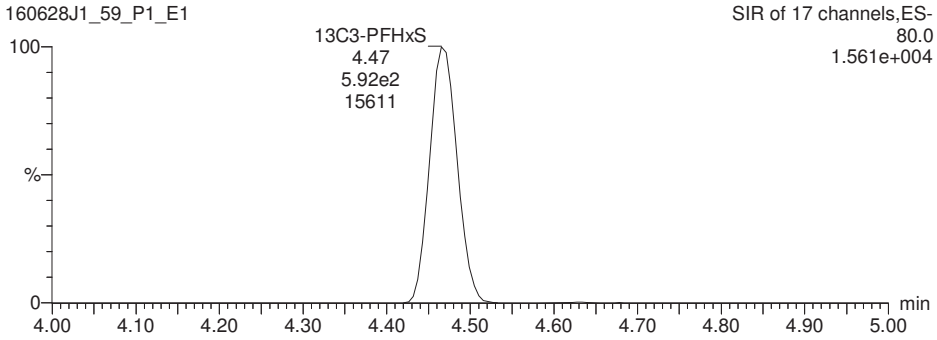
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Printed: Thursday, June 30, 2016 11:36:24 Pacific Daylight Time

Name: 160628J1_59.wiff, Date: 29-Jun-2016, Time: 03:44:58, ID: 1600783-03@10x, Description: OFPOL-MW-8-0616

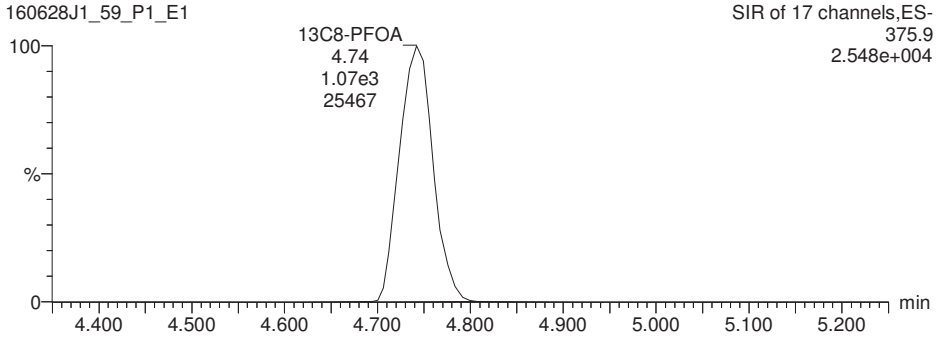
13C5-PFHxA



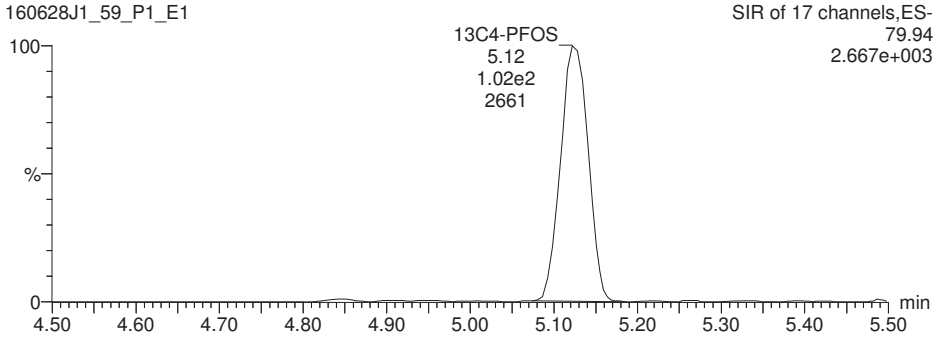
13C3-PFHxS



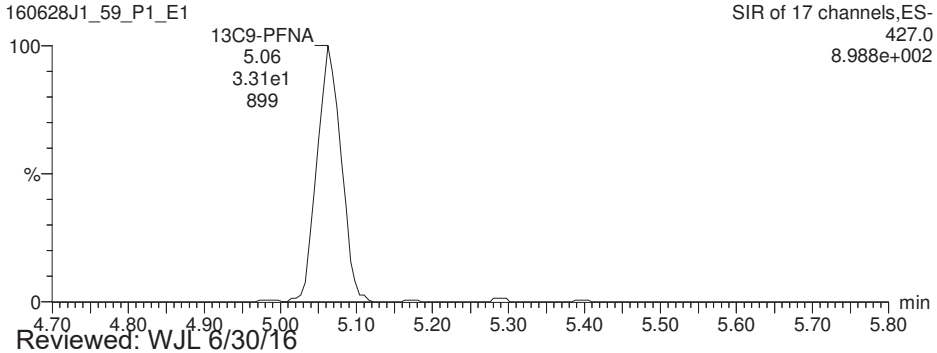
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16

pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_22.qld

Last Altered: Wednesday, June 29, 2016 15:09:08 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 15:09:17 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec	
1	1	PFBS	299 > 79.7	8.060e3	4.501e3		0.126	3.13	212			*SEE 1:10 DILUTION
2	2	PFHpA	363 > 318.9	7.658e4	1.413e4		0.126	3.99	450			
3	3	PFHxS	398.9 > 79.6	6.761e4	2.430e3		0.126	4.11	2790	E*		
4	4	PFOA	413 > 368.7	1.363e5	1.444e4		0.126	4.42	1250			
5	5	PFOS	499 >79.9	1.562e5	2.806e3		0.126	4.83	9550	E*		
6	6	PFNA	463 > 418.8	2.854e4	1.141e4		0.126	4.78	317			
7	7	13C3-PFBS	302.0 > 98.8	4.501e3	2.081e4	0.236	0.126	3.13	90.8		91.6	
8	8	13C4-PFHpA	367.2 > 321.8	1.413e4	2.081e4	0.923	0.126	3.99	72.9		73.6	
9	9	18O2-PFHxS	403 > 102.6	2.430e3	6.096e3	0.471	0.126	4.10	83.8		84.6	*
10	10	13C2-PFOA	414.9 > 369.7	1.444e4	1.601e4	1.088	0.126	4.42	82.1		82.9	
11	11	13C8-PFOS	507 > 79.9	2.806e3	3.203e3	1.142	0.126	4.83	76.0		76.7	*
12	12	13C5-PFNA	468.2 > 422.9	1.141e4	1.615e4	1.008	0.126	4.78	69.4		70.1	
13	13	13C5-PFHxA	318.0 > 272.9	2.081e4	2.081e4	1.000	0.126	3.47	99.0		100	
14	14	13C3-PFHxS	401.9 > 79.9	6.096e3	6.096e3	1.000	0.126	4.10	99.0		100	
15	15	13C8-PFOA	421.3 > 376	1.601e4	1.601e4	1.000	0.126	4.42	99.0		100	
16	16	13C4-PFOS	503 > 79.9	3.203e3	3.203e3	1.000	0.126	4.83	99.0		100	
17	17	13C9-PFNA	472.2 > 426.9	1.615e4	1.615e4	1.000	0.126	4.78	99.0		100	
18	18	Total PFBS	299 > 79.7		4.501e3		0.126		215			
19	19	Total PFHxS	398.9 > 79.6		2.430e3		0.126		3490			
20	20	Total PFOA	413 > 368.7		1.444e4		0.126		1460			
21	21	Total PFOS	499 > 79.9		2.806e3		0.126		16300			

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_22.qld

Last Altered: Wednesday, June 29, 2016 15:09:08 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 15:09:17 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	8060.443	4501.049	212.3
2	18	Total PFBS	299 > 79.7	3.02	113.279	4501.049	3.1

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	67606.961	2429.865	2789.4
2	19	Total PFHxS	398.9 > 79.6	4.01	13381.634	2429.865	699.1

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	136282.016	14441.106	1251.7
2	20	Total PFOA	413 > 368.7	4.31	22383.168	14441.106	205.4
3	20	Total PFOA	413 > 368.7	4.19	441.463	14441.106	4.0

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	156245.609	2805.732	9549.7
2	21	Total PFOS	499 >79.9	4.72	97404.570	2805.732	6381.4
3	21	Total PFOS	499 >79.9	4.61	5148.971	2805.732	390.4

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

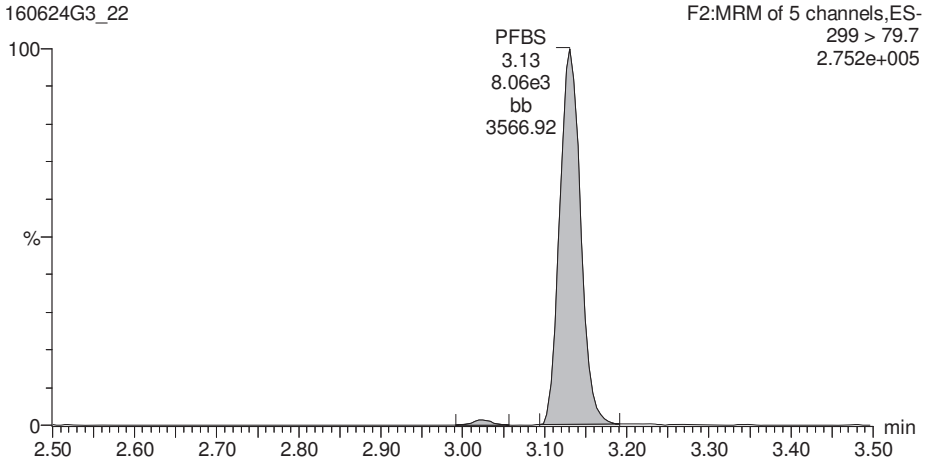
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Printed: Wednesday, June 29, 2016 15:09:17 Pacific Daylight Time

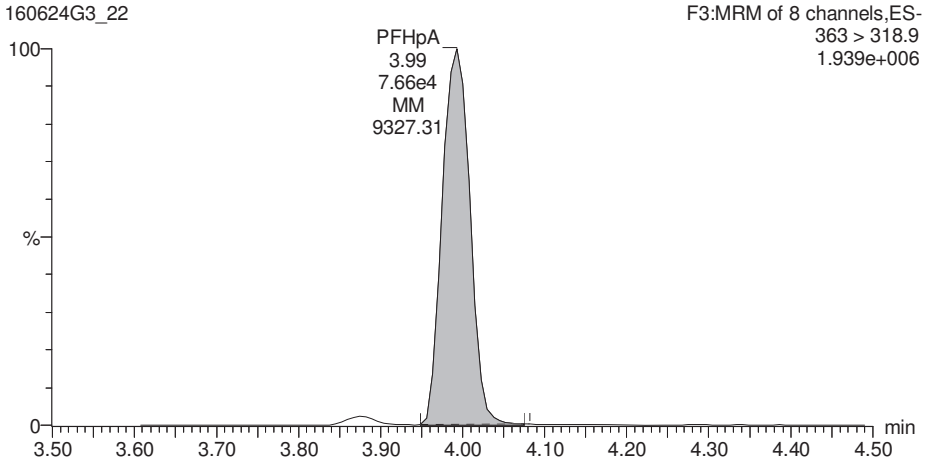
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ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18, Instrument: , Lab: , User:

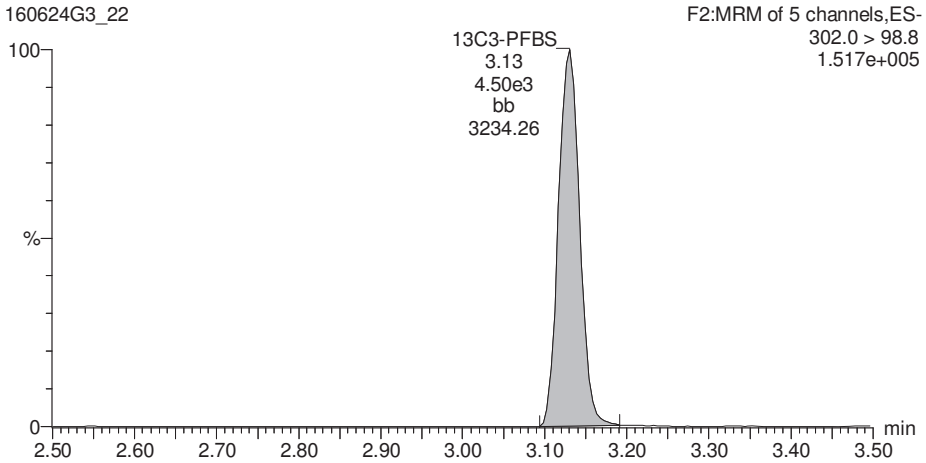
Total PFBS



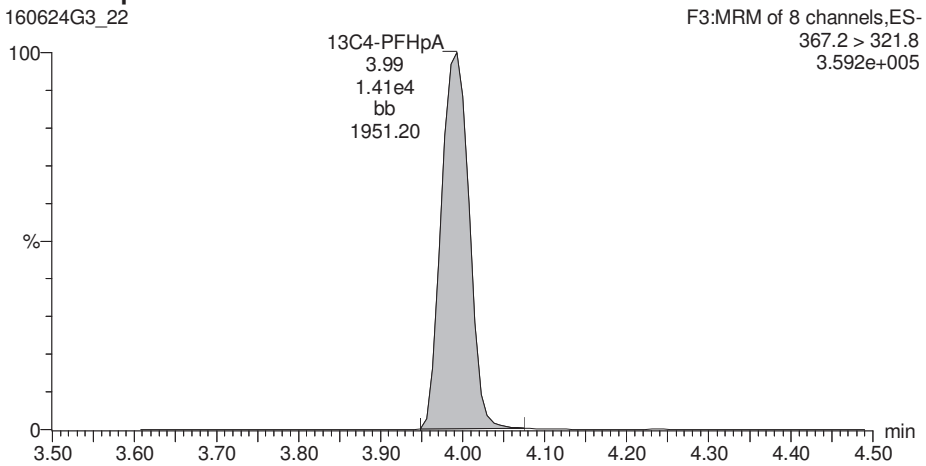
PFHpA



13C3-PFBS



13C4-PFHpA



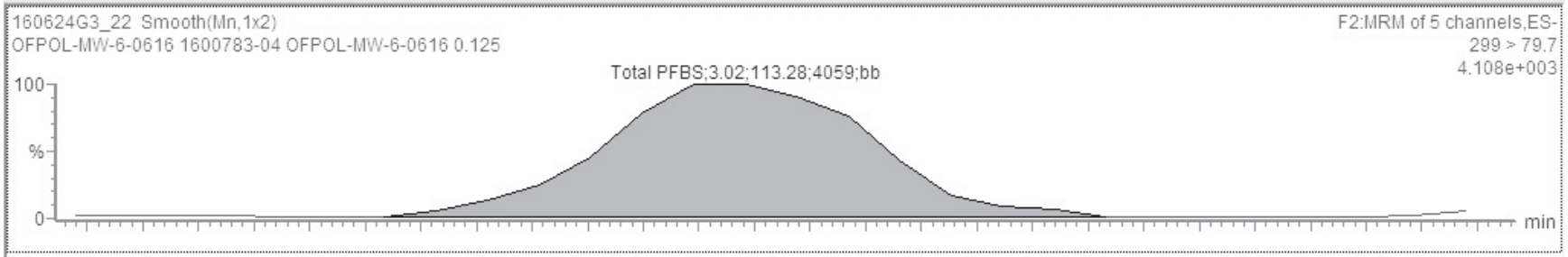
Reviewed: WJL 6/30/16 BR 6/29/16

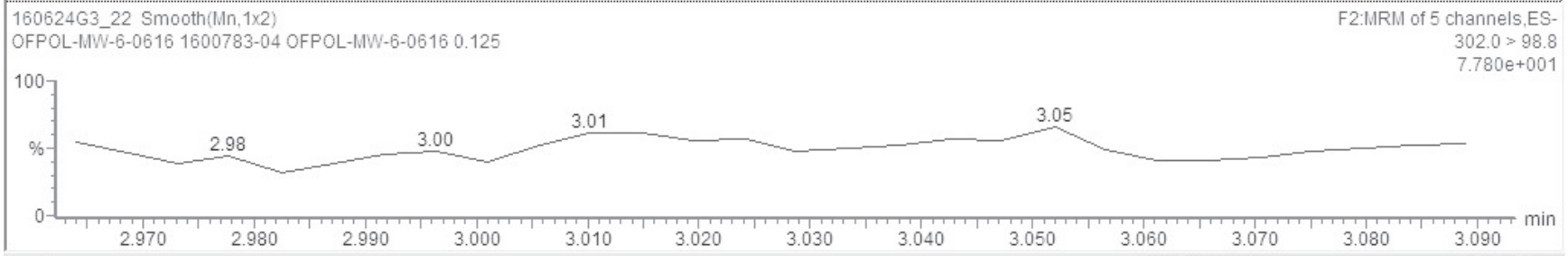
TargetLynx - 160624G3_22.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_22 - 1600783-04 OFPOL-MW-6-0616 0.125 - OFPOL-MW-6-0616

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7	13C3-PFBS	90.755429	0.0724	91.6		4.501e3	0.236	3.13	7	13			0.709	25-Jun-16	05:03:18		1600783-04.
8	13C4-PFHpA	72.893258	0.0727	73.6		1.413e4	0.923	3.99	8	13			0.904	25-Jun-16	05:03:18		1600783-04.
9	18O2-PFHxS	83.793509	0.273	84.6		2.430e3	0.471	4.10	9	14			0.929	25-Jun-16	05:03:18		1600783-04.
10	13C2-PFOA	80.673774	0.0152	81.5		1.418e4	1.088	4.42	10	15			1.000	25-Jun-16	05:03:18		1600783-04.
11	13C8-PFOS	75.387620	0.301	76.1		2.784e3	1.142	4.83	11	16			0.999	25-Jun-16	05:03:18		1600783-04.
12	13C5-PFNA	69.347025	0.0898	70.0		1.140e4	1.008	4.78	12	17			1.000	25-Jun-16	05:03:18		1600783-04.
13	13C5-PFHxA	99.041280	0.0315	100.0		2.081e4	1.000	3.47	13	13			0.000	25-Jun-16	05:03:18		1600783-04.
14	13C3-PFHxS	99.041280	0.0279	100.0		6.096e3	1.000	4.10	14	14			0.000	25-Jun-16	05:03:18		1600783-04.
15	13C8-PFOA	99.041280	0.0186	100.0		1.601e4	1.000	4.42	15	15			0.000	25-Jun-16	05:03:18		1600783-04.
16	13C4-PFOS	99.041280	0.0309	100.0		3.203e3	1.000	4.83	16	16			0.000	25-Jun-16	05:03:18		1600783-04.
17	13C9-PFNA	99.041280	0.0116	100.0		1.615e4	1.000	4.78	17	17			0.000	25-Jun-16	05:03:18		1600783-04.
18	Total PFBS	215.31217							18	7				25-Jun-16	05:03:18		1600783-04.
19	Total PFHxS	3474.2125							19	9				25-Jun-16	05:03:18		1600783-04.
20	Total PFOA	1458.5820							20	10				25-Jun-16	05:03:18		1600783-04.





Ready 160624G3_22 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

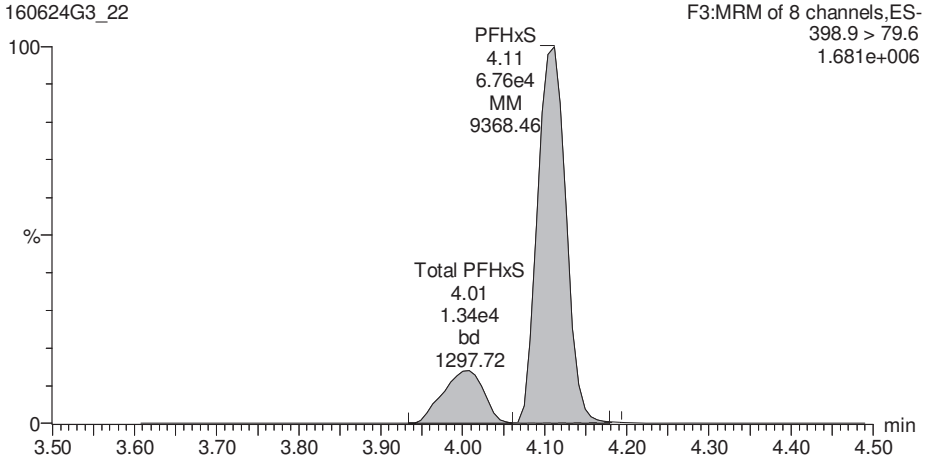
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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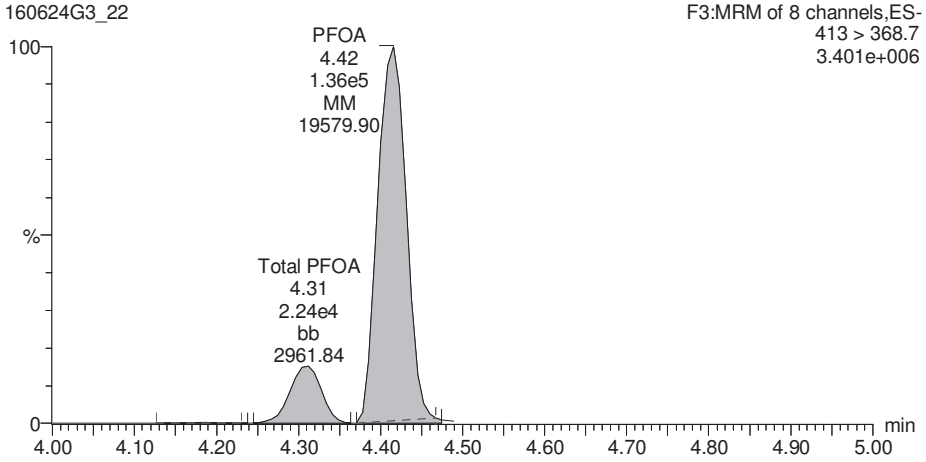
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ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18, Instrument: , Lab: , User:

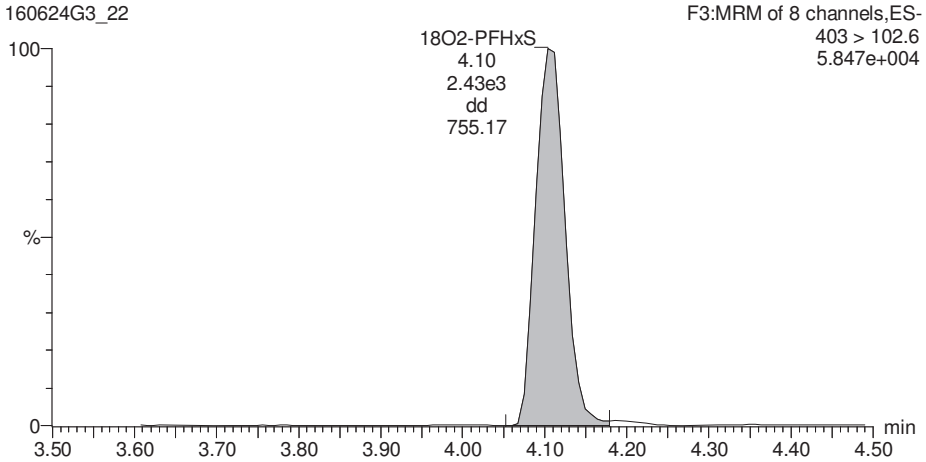
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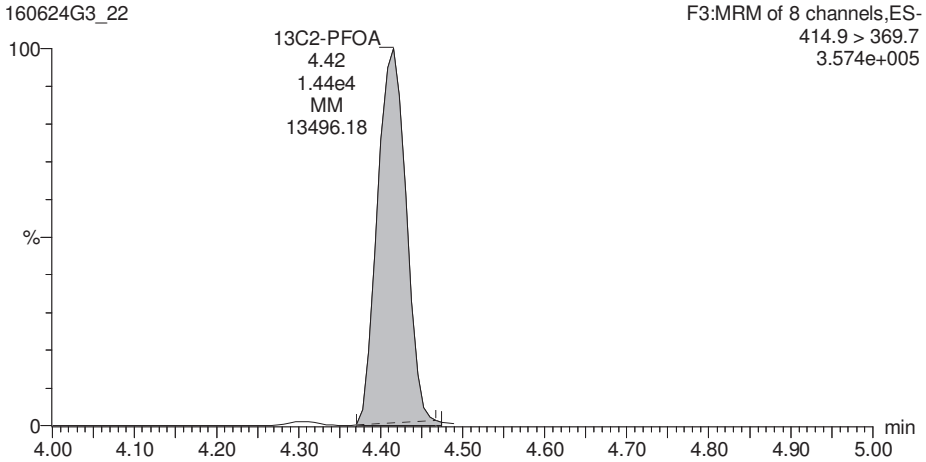
Total PFOA



18O2-PFHxS



13C2-PFOA



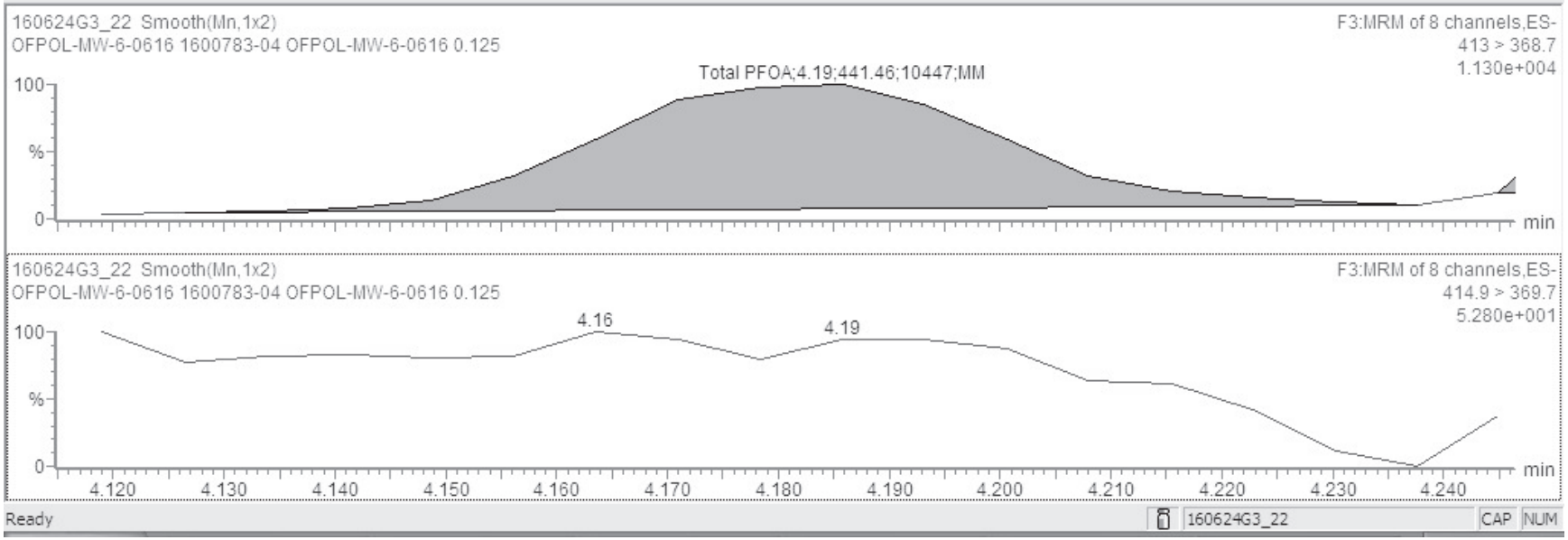
Reviewed: WJL 6/30/16 BR 6/29/16

TargetLynx - 160624G3_22.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_22 - 1600783-04 OFPOL-MW-6-0616 0.125 - OFPOL-MW-6-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	90.755429	0.0724	91.6		4.501e3	0.236	3.13	7	13			0.709	25-Jun-16	05:03:18		1600783-04.
8	13C4-PFHpA	72.893258	0.0727	73.6		1.413e4	0.923	3.99	8	13			0.904	25-Jun-16	05:03:18		1600783-04.
9	18O2-PFHxS	83.793509	0.273	84.6		2.430e3	0.471	4.10	9	14			0.929	25-Jun-16	05:03:18		1600783-04.
10	13C2-PFOA	82.134699	0.0152	82.9		1.444e4	1.088	4.42	10	15			1.000	25-Jun-16	05:03:18		1600783-04.
11	13C8-PFOS	75.387620	0.301	76.1		2.784e3	1.142	4.83	11	16			0.999	25-Jun-16	05:03:18		1600783-04.
12	13C5-PFNA	69.347025	0.0898	70.0		1.140e4	1.008	4.78	12	17			1.000	25-Jun-16	05:03:18		1600783-04.
13	13C5-PFHxA	99.041280	0.0315	100.0		2.081e4	1.000	3.47	13	13			0.000	25-Jun-16	05:03:18		1600783-04.
14	13C3-PFHxS	99.041280	0.0279	100.0		6.096e3	1.000	4.10	14	14			0.000	25-Jun-16	05:03:18		1600783-04.
15	13C8-PFOA	99.041280	0.0186	100.0		1.601e4	1.000	4.42	15	15			0.000	25-Jun-16	05:03:18		1600783-04.
16	13C4-PFOS	99.041280	0.0309	100.0		3.203e3	1.000	4.83	16	16			0.000	25-Jun-16	05:03:18		1600783-04.
17	13C9-PFNA	99.041280	0.0116	100.0		1.615e4	1.000	4.78	17	17			0.000	25-Jun-16	05:03:18		1600783-04.
18	Total PFBS	215.31217							18	7				25-Jun-16	05:03:18		1600783-04.
19	Total PFHxS	3488.4155							19	9				25-Jun-16	05:03:18		1600783-04.
20	Total PFOA	1461.0862							20	10				25-Jun-16	05:03:18		1600783-04.



Ready 160624G3_22 CAP NUM

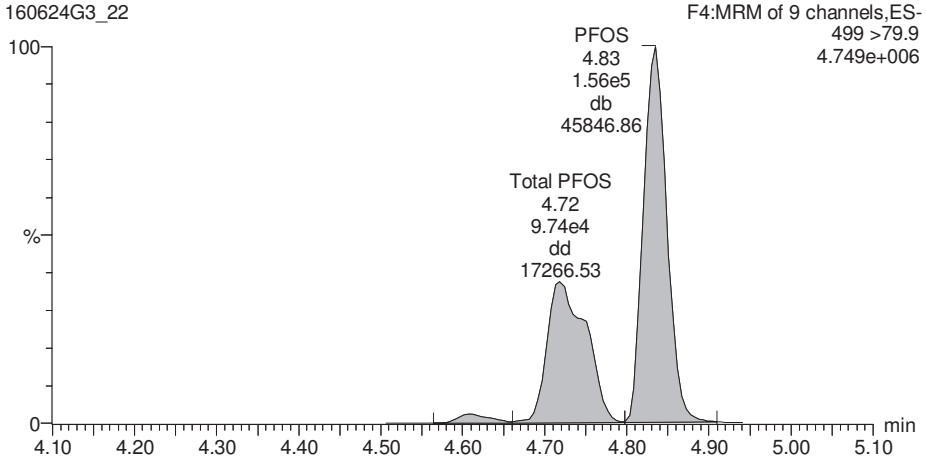
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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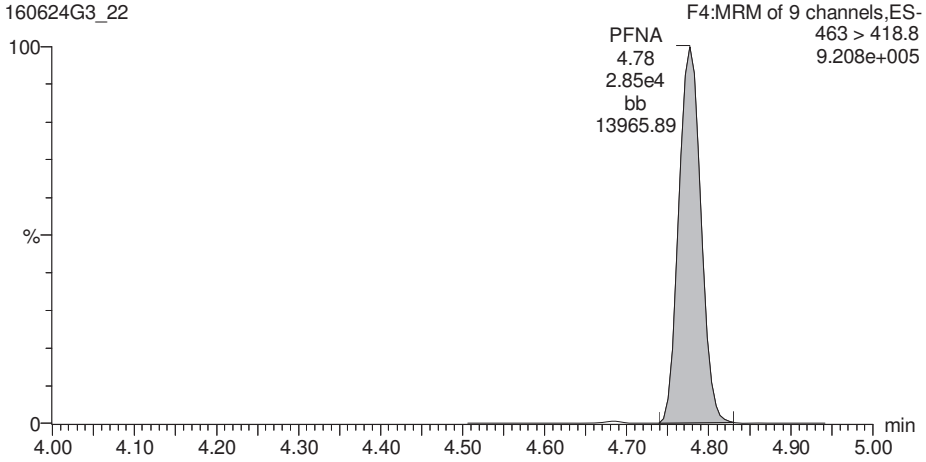
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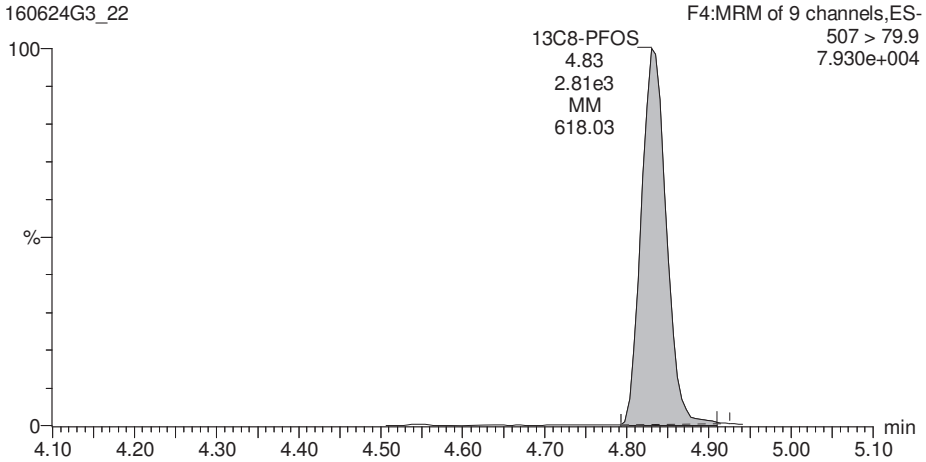
Total PFOS



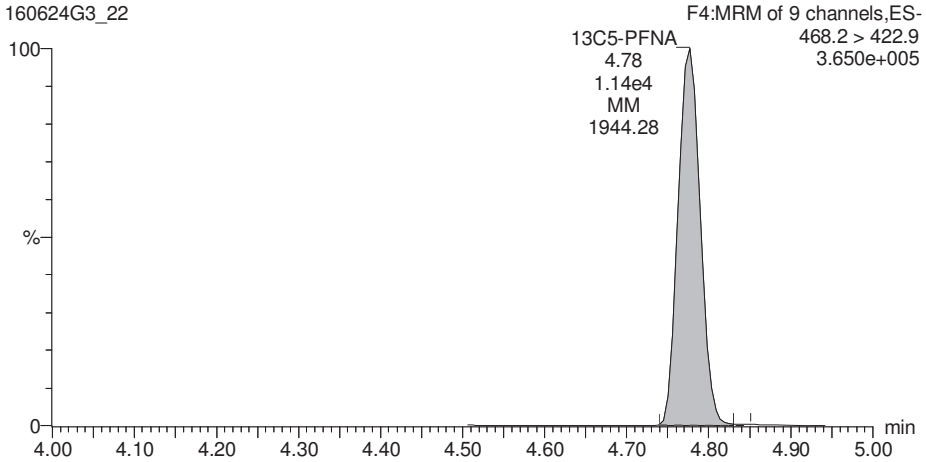
PFNA



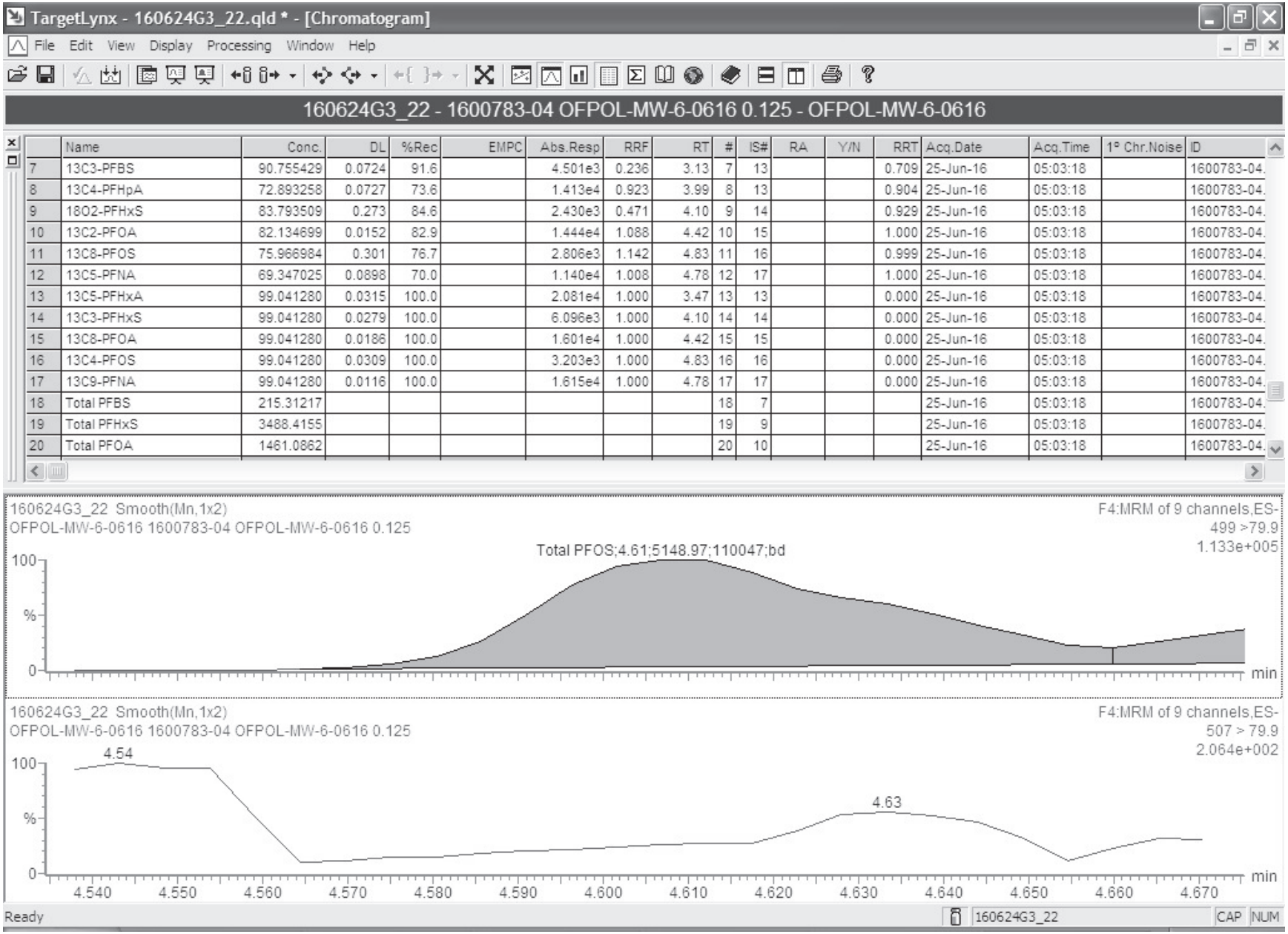
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16



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7	13C3-PFBS	90.755429	0.0724	91.6		4.501e3	0.236	3.13	7	13			0.709	25-Jun-16	05:03:18		1600783-04.
8	13C4-PFHpA	72.893258	0.0727	73.6		1.413e4	0.923	3.99	8	13			0.904	25-Jun-16	05:03:18		1600783-04.
9	18O2-PFHxS	83.793509	0.273	84.6		2.430e3	0.471	4.10	9	14			0.929	25-Jun-16	05:03:18		1600783-04.
10	13C2-PFOA	82.134699	0.0152	82.9		1.444e4	1.088	4.42	10	15			1.000	25-Jun-16	05:03:18		1600783-04.
11	13C8-PFOS	75.966984	0.301	76.7		2.806e3	1.142	4.83	11	16			0.999	25-Jun-16	05:03:18		1600783-04.
12	13C5-PFNA	69.347025	0.0898	70.0		1.140e4	1.008	4.78	12	17			1.000	25-Jun-16	05:03:18		1600783-04.
13	13C5-PFHxA	99.041280	0.0315	100.0		2.081e4	1.000	3.47	13	13			0.000	25-Jun-16	05:03:18		1600783-04.
14	13C3-PFHxS	99.041280	0.0279	100.0		6.096e3	1.000	4.10	14	14			0.000	25-Jun-16	05:03:18		1600783-04.
15	13C8-PFOA	99.041280	0.0186	100.0		1.601e4	1.000	4.42	15	15			0.000	25-Jun-16	05:03:18		1600783-04.
16	13C4-PFOS	99.041280	0.0309	100.0		3.203e3	1.000	4.83	16	16			0.000	25-Jun-16	05:03:18		1600783-04.
17	13C9-PFNA	99.041280	0.0116	100.0		1.615e4	1.000	4.78	17	17			0.000	25-Jun-16	05:03:18		1600783-04.
18	Total PFBS	215.31217							18	7				25-Jun-16	05:03:18		1600783-04.
19	Total PFHxS	3488.4155							19	9				25-Jun-16	05:03:18		1600783-04.
20	Total PFOA	1461.0862							20	10				25-Jun-16	05:03:18		1600783-04.

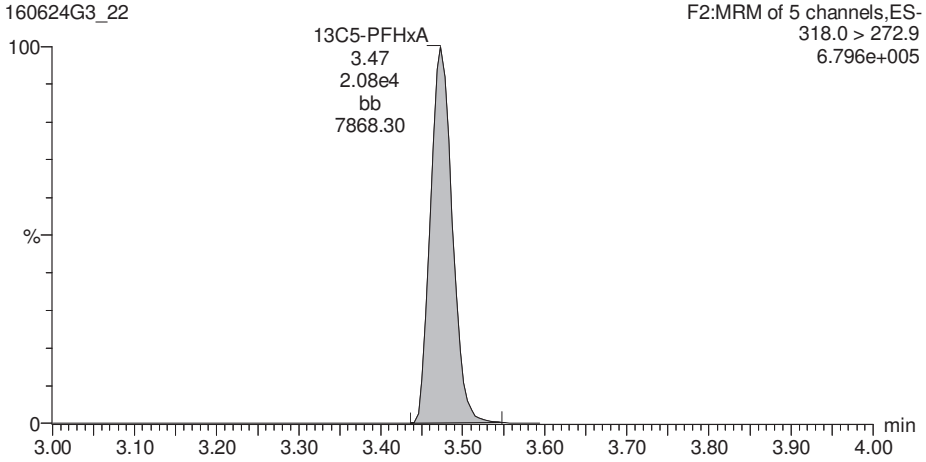
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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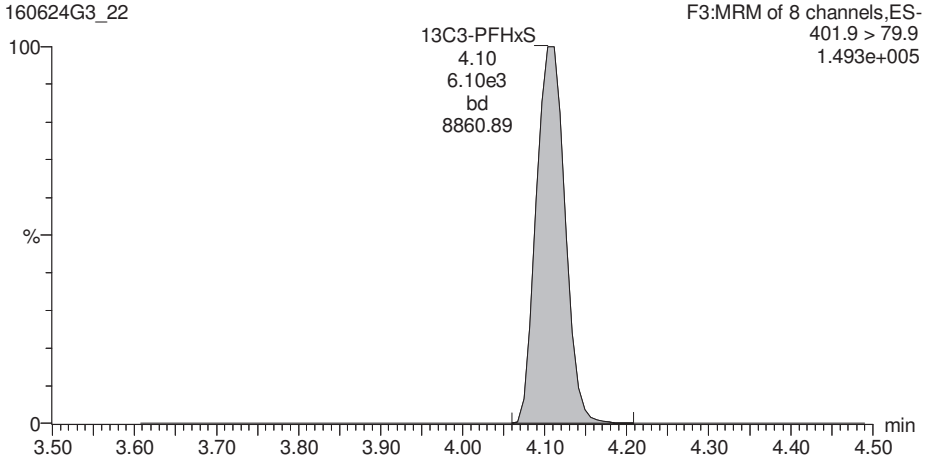
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ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18, Instrument: , Lab: , User:

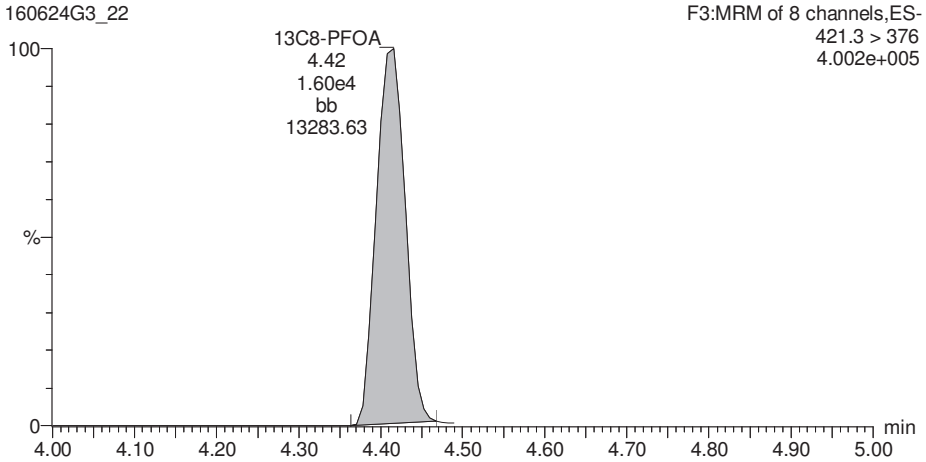
13C5-PFHxA



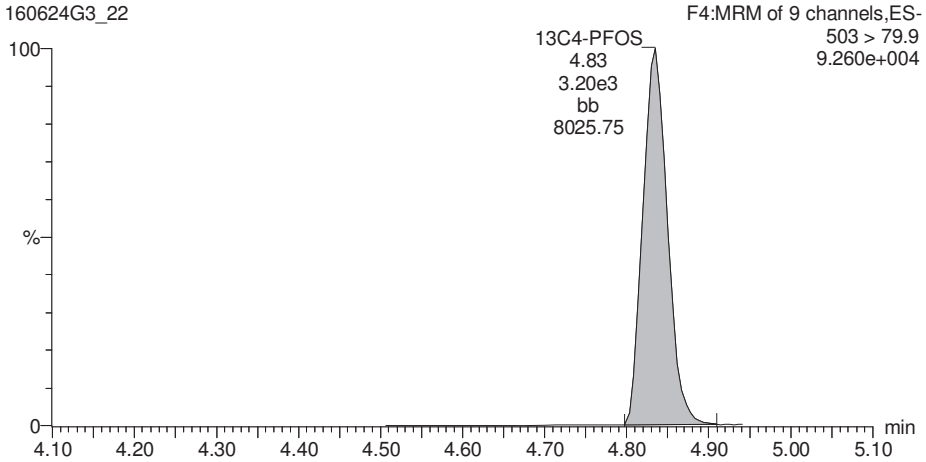
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/29/16

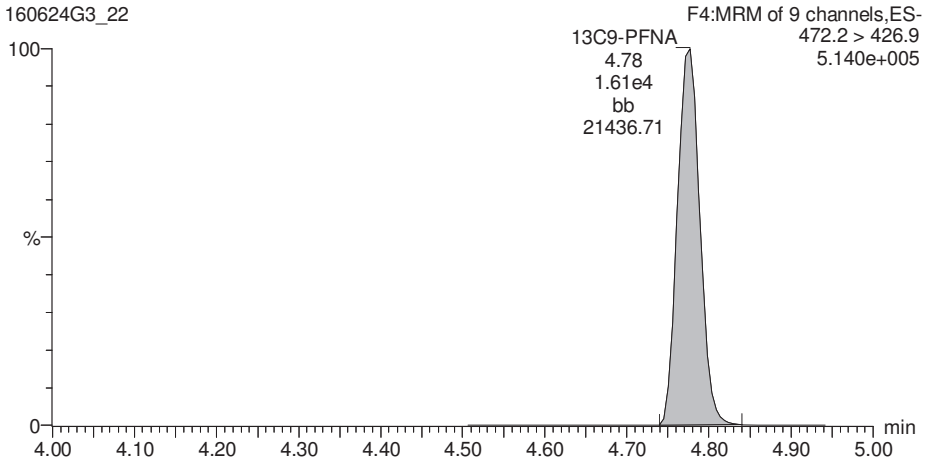
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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ID: 1600783-04 OFPOL-MW-6-0616 0.125, Description: OFPOL-MW-6-0616, Name: 160624G3_22, Date: 25-Jun-2016, Time: 05:03:18, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_60.qld

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Printed: Thursday, June 30, 2016 11:40:51 Pacific Daylight Time

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_60.wiff, Date: 29-Jun-2016, Time: 03:57:12, ID: 1600783-04@10x, Description: OFPOL-MW-6-0616

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1	3	PFHxS	79.91	3.27e3	1.65e2		0.126	4.46	3.06	
2	5	PFOS	79.92	1.59e4	2.33e2		0.126	5.12	9.88	
3	9	18O2-PFHxS	102.9	1.65e2	6.16e2	0.307	0.126	4.46	0.0863	87.1
4	11	13C8-PFOS	79.93	2.33e2	2.76e2	1.026	0.126	5.12	0.0816	82.4
5	14	13C3-PFHxS	80.0	6.16e2	6.16e2	1.000	0.126	4.46	0.0990	100.0
6	16	13C4-PFOS	79.94	2.76e2	2.76e2	1.000	0.126	5.12	0.0990	100.0
7	19	Total PFHxS	79.91		1.65e2		0.126		3.54	
8	21	Total PFOS	79.92		2.33e2		0.126		14.8	

Target =ug/L

Reviewed: WJL 6/30/16 pw 7/1/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_60.qld

Last Altered: Thursday, June 30, 2016 10:25:09 Pacific Daylight Time
Printed: Thursday, June 30, 2016 11:40:51 Pacific Daylight Time

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_60.wiff, Date: 29-Jun-2016, Time: 03:57:12, ID: 1600783-04@10x, Description: OFPOL-MW-6-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.46	2.86e2	6.98e2	0.200
2	18	Total PFBS	79.9	3.34	4.89e0	6.98e2	0.00342

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.46	3.27e3	1.65e2	3.06
2	19	Total PFHxS	79.91	4.36	5.14e2	1.65e2	0.481
3	19	Total PFHxS	79.91	4.26	6.28e0	1.65e2	0.00587

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	368.9	4.74	5.21e3	8.51e2	1.43
2	20	Total PFOA	368.9	4.64	7.37e2	8.51e2	0.202

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	21	Total PFOS	79.92	4.92	5.28e2	2.33e2	0.327
2	5	PFOS	79.92	5.12	1.59e4	2.33e2	9.88
3	21	Total PFOS	79.92	5.02	7.39e3	2.33e2	4.58

Reviewed: WJL 6/30/16 pw 7/1/16

Vista Analytical Laboratory Q2

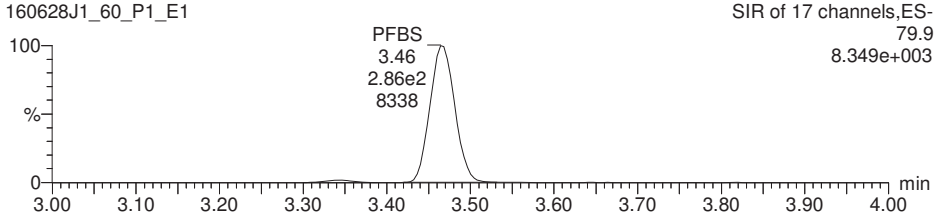
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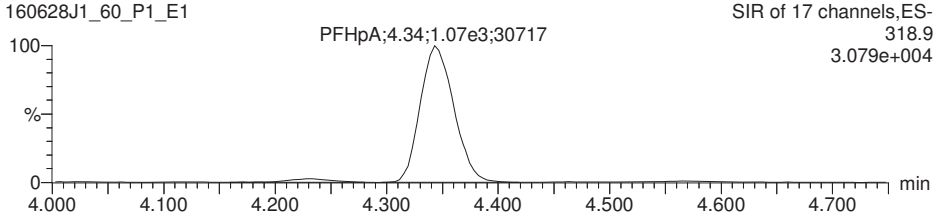
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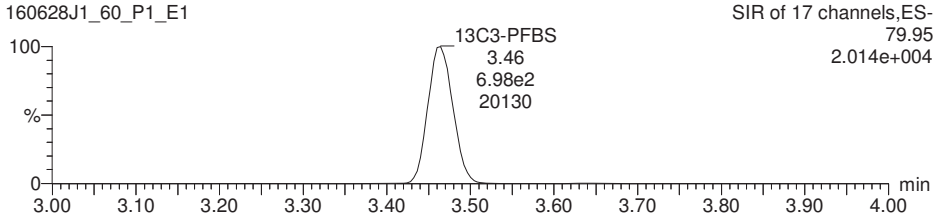
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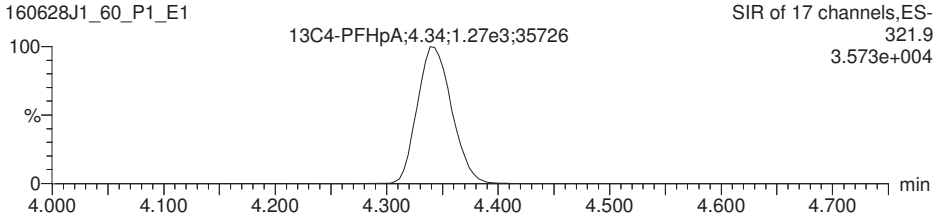
PFHpA



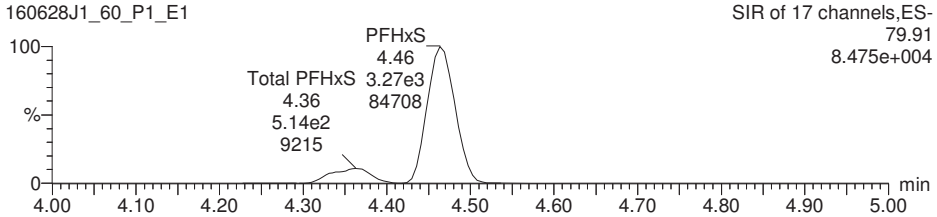
13C3-PFBS



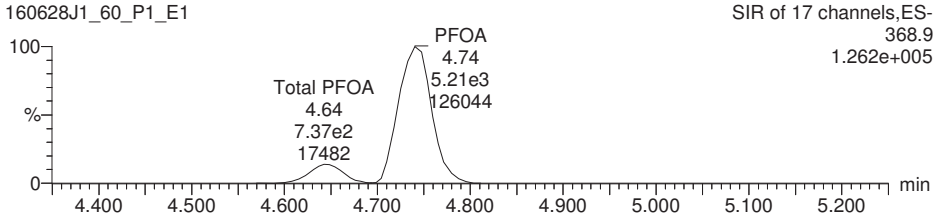
13C4-PFHpA



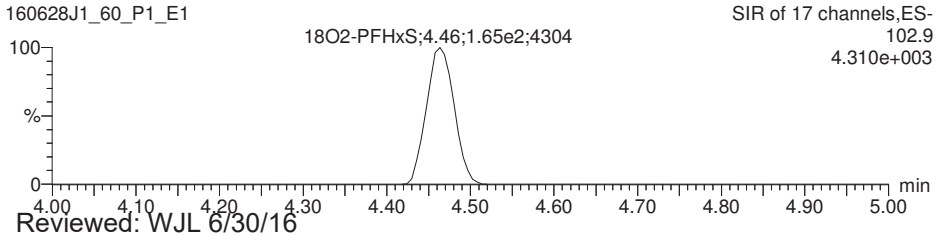
PFHxS



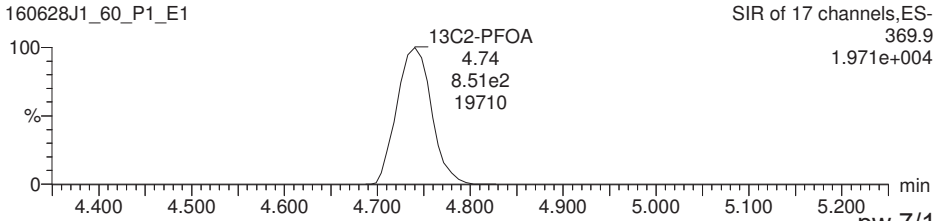
PFOA



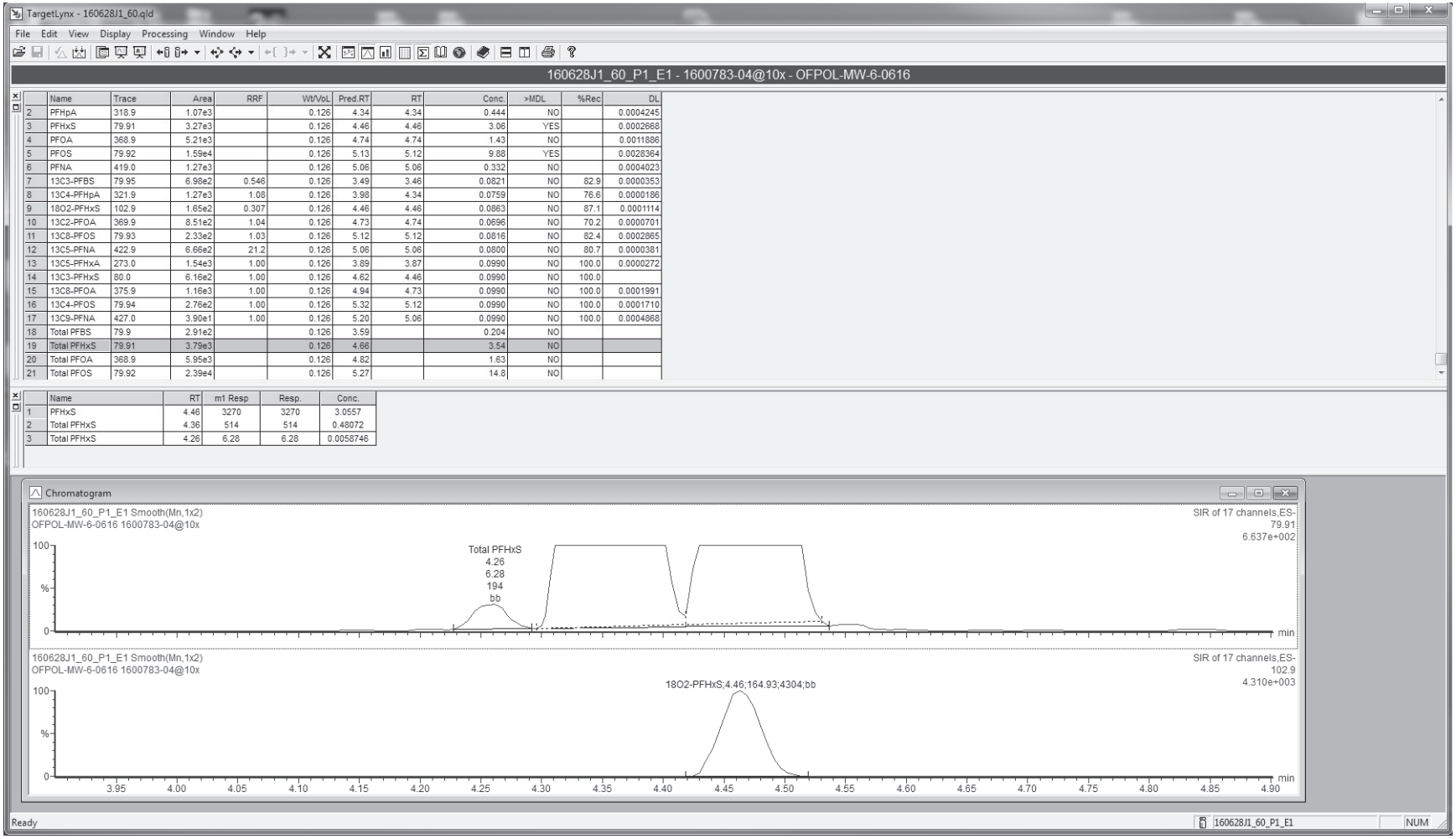
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 pw 7/1/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	1.07e3		0.126	4.34	4.34	0.444	NO		0.0004245
3	PFHxS	79.91	3.27e3		0.126	4.46	4.46	3.06	YES		0.0002668
4	PFOA	368.9	5.21e3		0.126	4.74	4.74	1.43	NO		0.0011886
5	PFOS	79.92	1.59e4		0.126	5.13	5.12	9.88	YES		0.0028364
6	PFNA	419.0	1.27e3		0.126	5.06	5.06	0.332	NO		0.0004023
7	13C3-PFBS	79.95	6.98e2	0.546	0.126	3.49	3.46	0.0821	NO	82.9	0.0000353
8	13C4-PFHpA	321.9	1.27e3	1.08	0.126	3.98	4.34	0.0759	NO	76.6	0.0000186
9	18O2-PFHxS	102.9	1.65e2	0.307	0.126	4.46	4.46	0.0863	NO	87.1	0.0001114
10	13C2-PFOA	369.9	8.51e2	1.04	0.126	4.73	4.74	0.0696	NO	70.2	0.0000701
11	13C8-PFOS	79.93	2.33e2	1.03	0.126	5.12	5.12	0.0816	NO	82.4	0.0002865
12	13C5-PFNA	422.9	6.66e2	21.2	0.126	5.06	5.06	0.0800	NO	80.7	0.0000381
13	13C5-PFHxA	273.0	1.54e3	1.00	0.126	3.89	3.87	0.0990	NO	100.0	0.0000272
14	13C3-PFHxS	80.0	6.16e2	1.00	0.126	4.62	4.46	0.0990	NO	100.0	
15	13C8-PFOA	375.9	1.16e3	1.00	0.126	4.94	4.73	0.0990	NO	100.0	0.0001991
16	13C4-PFOS	79.94	2.76e2	1.00	0.126	5.32	5.12	0.0990	NO	100.0	0.0001710
17	13C9-PFNA	427.0	3.90e1	1.00	0.126	5.20	5.06	0.0990	NO	100.0	0.0004868
18	Total PFBS	79.9	2.91e2		0.126	3.59		0.204	NO		
19	Total PFHxS	79.91	3.79e3		0.126	4.66		3.54	NO		
20	Total PFOA	368.9	5.95e3		0.126	4.82		1.63	NO		
21	Total PFOS	79.92	2.39e4		0.126	5.27		14.8	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.46	3270	3270	3.0557
2	Total PFHxS	4.36	514	514	0.48072
3	Total PFHxS	4.26	6.28	6.28	0.0058746

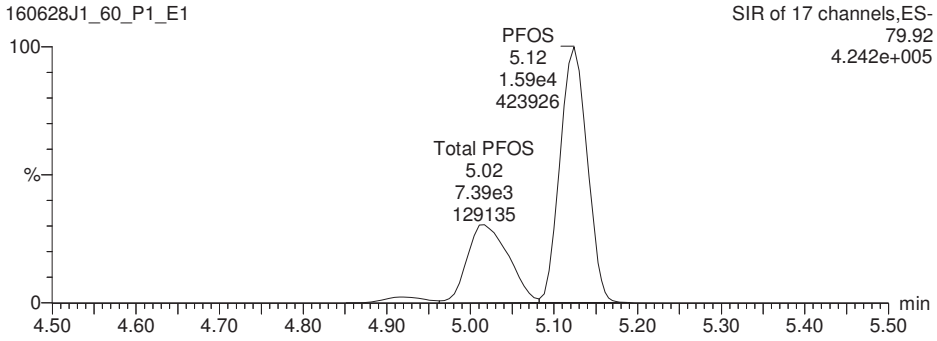
Reviewed: WJL 6/30/16 pw 7/1/16

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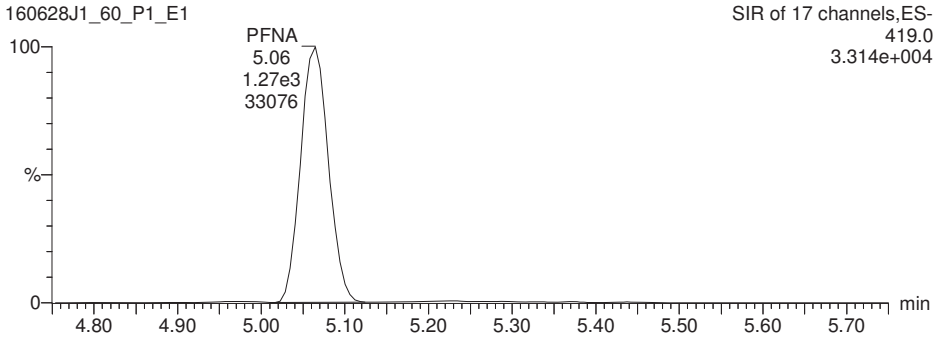
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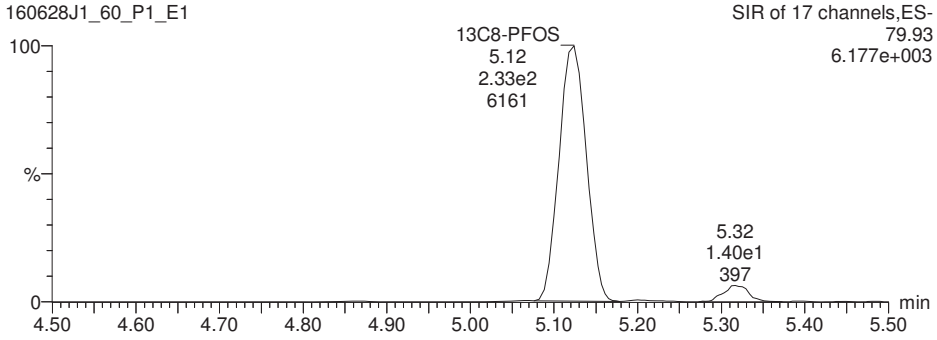
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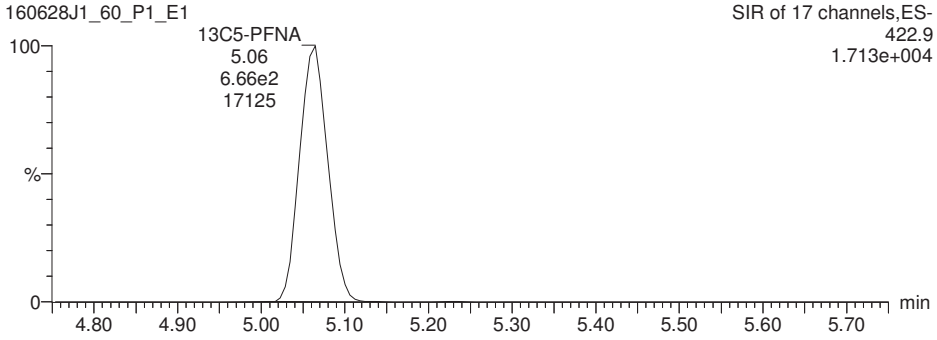
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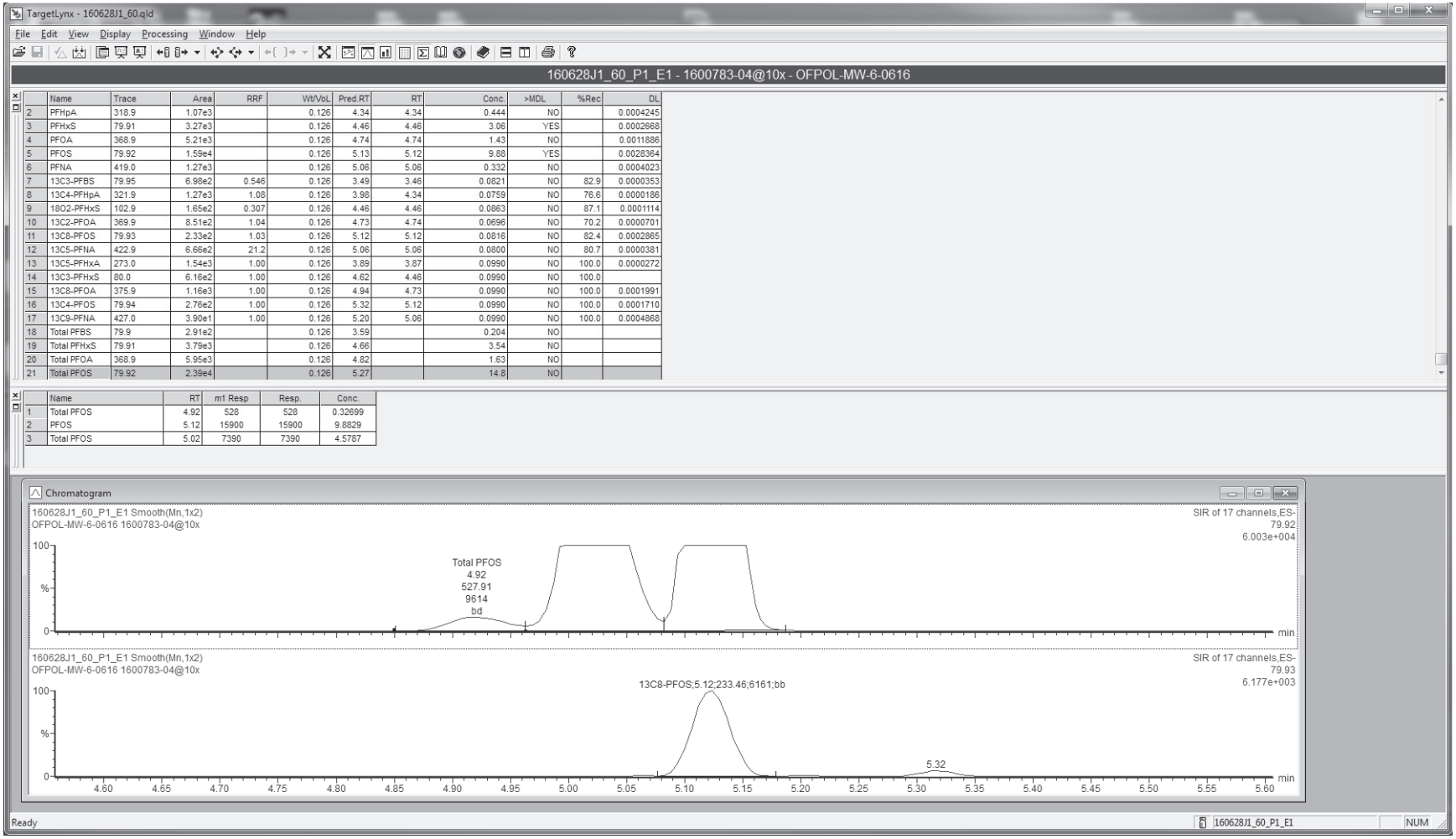
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 7/1/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	1.07e3		0.126	4.34	4.34	0.444	NO		0.0004245
3	PFHxS	79.91	3.27e3		0.126	4.46	4.46	3.06	YES		0.0002668
4	PFOA	368.9	5.21e3		0.126	4.74	4.74	1.43	NO		0.0011886
5	PFOS	79.92	1.59e4		0.126	5.13	5.12	9.88	YES		0.0028364
6	PFNA	419.0	1.27e3		0.126	5.06	5.06	0.332	NO		0.0004023
7	13C3-PFBS	79.95	6.98e2	0.546	0.126	3.49	3.46	0.0821	NO	82.9	0.0000353
8	13C4-PFHpA	321.9	1.27e3	1.08	0.126	3.98	4.34	0.0759	NO	76.6	0.0000186
9	18O2-PFHxS	102.9	1.65e2	0.307	0.126	4.46	4.46	0.0863	NO	87.1	0.0001114
10	13C2-PFOA	369.9	8.51e2	1.04	0.126	4.73	4.74	0.0696	NO	70.2	0.0000701
11	13C8-PFOS	79.93	2.33e2	1.03	0.126	5.12	5.12	0.0816	NO	82.4	0.0002865
12	13C5-PFNA	422.9	6.66e2	21.2	0.126	5.06	5.06	0.0800	NO	80.7	0.0000381
13	13C5-PFHxA	273.0	1.54e3	1.00	0.126	3.89	3.87	0.0990	NO	100.0	0.0000272
14	13C3-PFHxS	80.0	6.16e2	1.00	0.126	4.62	4.46	0.0990	NO	100.0	
15	13C8-PFOA	375.9	1.16e3	1.00	0.126	4.94	4.73	0.0990	NO	100.0	0.0001991
16	13C4-PFOS	79.94	2.76e2	1.00	0.126	5.32	5.12	0.0990	NO	100.0	0.0001710
17	13C9-PFNA	427.0	3.90e1	1.00	0.126	5.20	5.06	0.0990	NO	100.0	0.0004868
18	Total PFBS	79.9	2.91e2		0.126	3.59		0.204	NO		
19	Total PFHxS	79.91	3.79e3		0.126	4.66		3.54	NO		
20	Total PFOA	368.9	5.95e3		0.126	4.82		1.63	NO		
21	Total PFOS	79.92	2.39e4		0.126	5.27		14.8	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	Total PFOS	4.92	528	528	0.32699
2	PFOS	5.12	15900	15900	9.8829
3	Total PFOS	5.02	7390	7390	4.5787

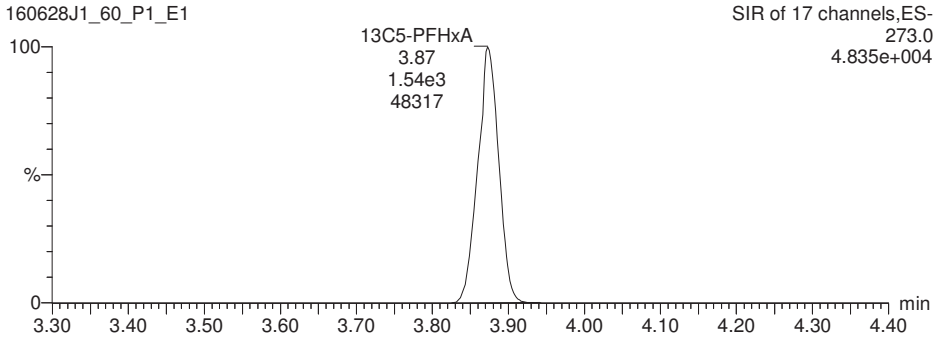
Reviewed: WJL 6/30/16 pw 7/1/16

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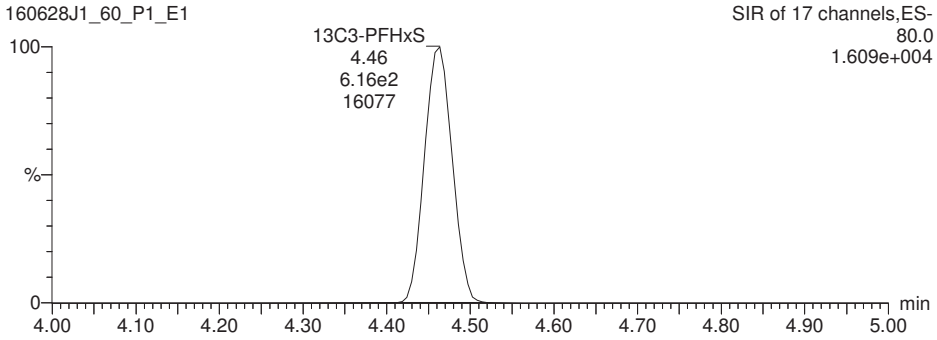
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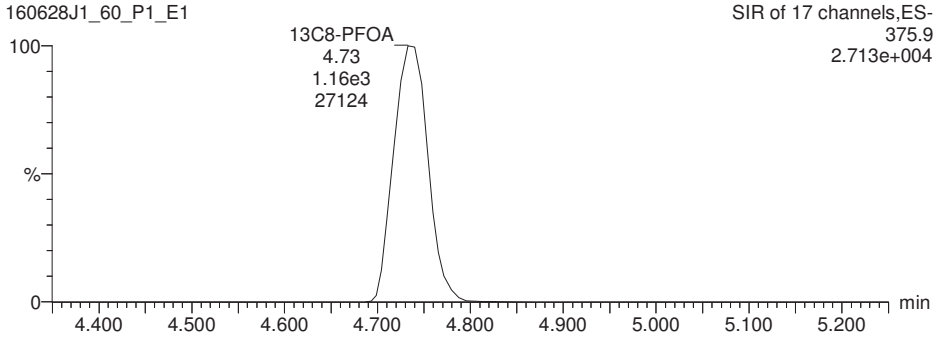
13C5-PFHxA



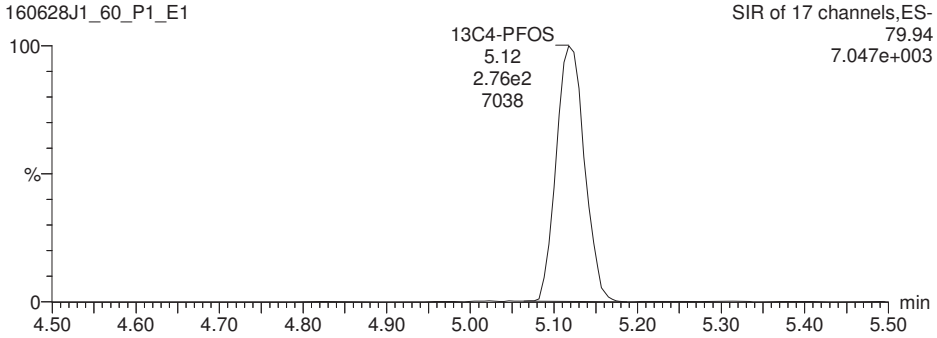
13C3-PFHxS



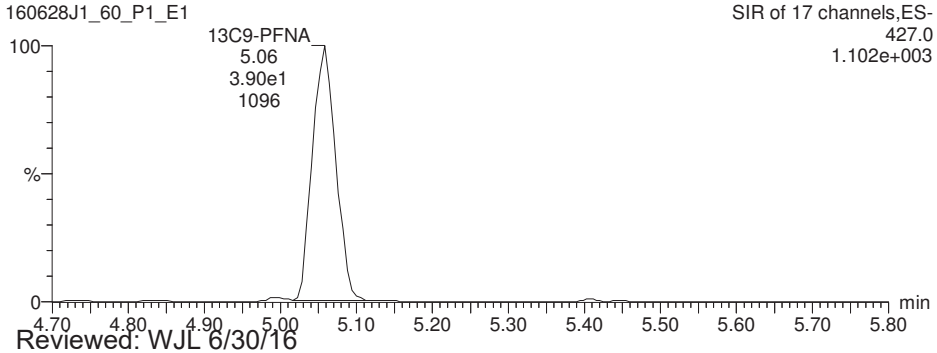
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 7/1/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_23.qld

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Printed: Wednesday, June 29, 2016 15:12:47 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-05 OFPOL-MW-3-0616 0.125, Description: OFPOL-MW-3-0616, Name: 160624G3_23, Date: 25-Jun-2016, Time: 05:15:58

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec	
1	1	PFBS	299 > 79.7	1.286e4	4.643e3		0.125	3.13	328			*SEE 1:10 DILUTION
2	2	PFHpA	363 > 318.9	4.479e4	1.411e4		0.125	3.99	267			
3	3	PFHxS	398.9 > 79.6	1.209e5	1.907e3		0.125	4.10	5210	E*		
4	4	PFOA	413 > 368.7	3.774e5	1.062e4		0.125	4.42	4790	E*		
5	5	PFOS	499 >79.9	1.740e5	2.713e3		0.125	4.83	10900	E*		
6	6	PFNA	463 > 418.8	5.998e3	1.459e4		0.125	4.78	53.0			
7	7	13C3-PFBS	302.0 > 98.8	4.643e3	1.710e4	0.236	0.125	3.13	115		115	
8	8	13C4-PFHpA	367.2 > 321.8	1.411e4	1.710e4	0.923	0.125	3.99	89.8		89.5	
9	9	18O2-PFHxS	403 > 102.6	1.907e3	4.640e3	0.471	0.125	4.10	87.5		87.2	*
10	10	13C2-PFOA	414.9 > 369.7	1.062e4	1.081e4	1.088	0.125	4.41	90.6		90.3	*
11	11	13C8-PFOS	507 > 79.9	2.713e3	3.274e3	1.142	0.125	4.83	72.8		72.5	*
12	12	13C5-PFNA	468.2 > 422.9	1.459e4	1.985e4	1.008	0.125	4.78	73.1		72.9	
13	13	13C5-PFHxA	318.0 > 272.9	1.710e4	1.710e4	1.000	0.125	3.47	100		100	
14	14	13C3-PFHxS	401.9 > 79.9	4.640e3	4.640e3	1.000	0.125	4.10	100		100	
15	15	13C8-PFOA	421.3 > 376	1.081e4	1.081e4	1.000	0.125	4.41	100		100	
16	16	13C4-PFOS	503 > 79.9	3.274e3	3.274e3	1.000	0.125	4.83	100		100	
17	17	13C9-PFNA	472.2 > 426.9	1.985e4	1.985e4	1.000	0.125	4.78	100		100	
18	18	Total PFBS	299 > 79.7		4.643e3		0.125		335			
19	19	Total PFHxS	398.9 > 79.6		1.907e3		0.125		7420			
20	20	Total PFOA	413 > 368.7		1.062e4		0.125		6130			
21	21	Total PFOS	499 > 79.9		2.713e3		0.125		18800			

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_23.qld

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Printed: Wednesday, June 29, 2016 15:12:47 Pacific Daylight Time

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-05 OFPOL-MW-3-0616 0.125, Description: OFPOL-MW-3-0616, Name: 160624G3_23, Date: 25-Jun-2016, Time: 05:15:58

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	18	Total PFBS	299 > 79.7	3.57	5.004	4642.637	0.1
2	1	PFBS	299 > 79.7	3.13	12860.262	4642.637	328.3
3	18	Total PFBS	299 > 79.7	3.02	249.787	4642.637	6.6

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	19	Total PFHxS	398.9 > 79.6	4.00	38784.063	1907.154	2201.6
2	19	Total PFHxS	398.9 > 79.6	3.90	173.707	1907.154	12.8
3	3	PFHxS	398.9 > 79.6	4.10	120920.297	1907.154	5207.6

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	377393.469	10619.638	4789.9
2	20	Total PFOA	413 > 368.7	4.31	103889.477	10619.638	1314.4
3	20	Total PFOA	413 > 368.7	4.18	2250.133	10619.638	28.4

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	173984.672	2712.779	10869.7
2	21	Total PFOS	499 >79.9	4.72	111543.055	2712.779	7485.2
3	21	Total PFOS	499 >79.9	4.61	5577.386	2712.779	442.5

Reviewed: WJL 6/30/16 BR 6/29/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

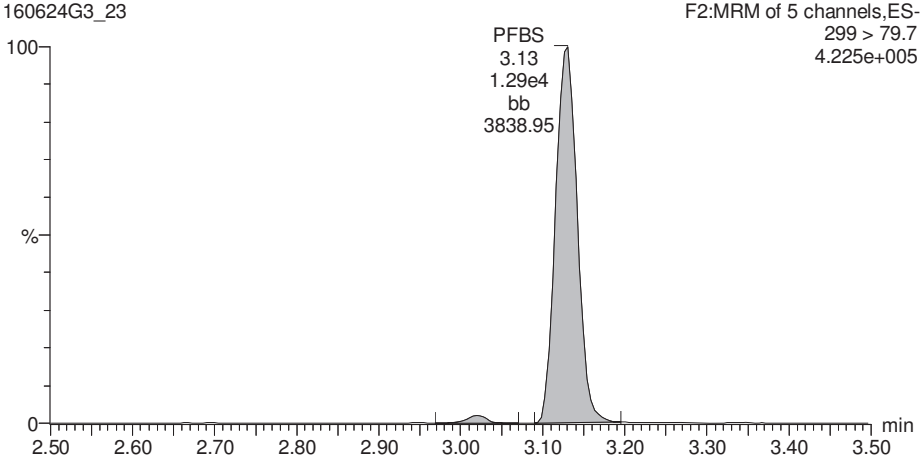
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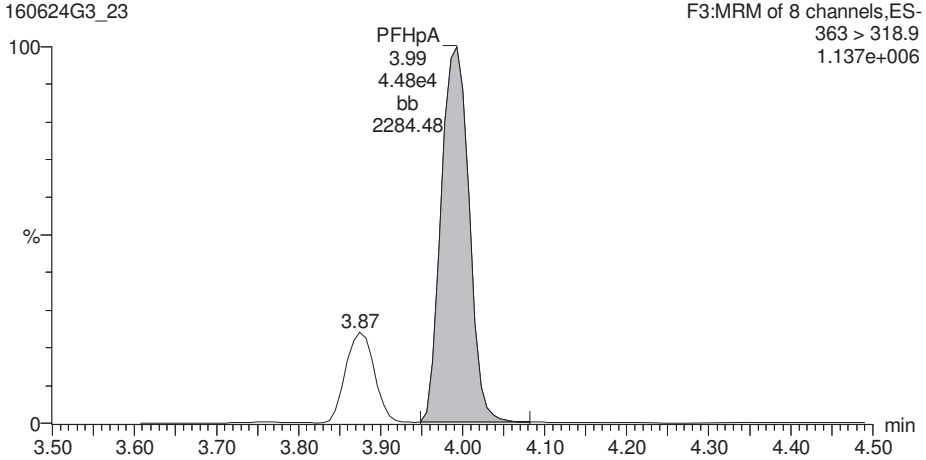
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ID: 1600783-05 OFPOL-MW-3-0616 0.125, Description: OFPOL-MW-3-0616, Name: 160624G3_23, Date: 25-Jun-2016, Time: 05:15:58, Instrument: , Lab: , User:

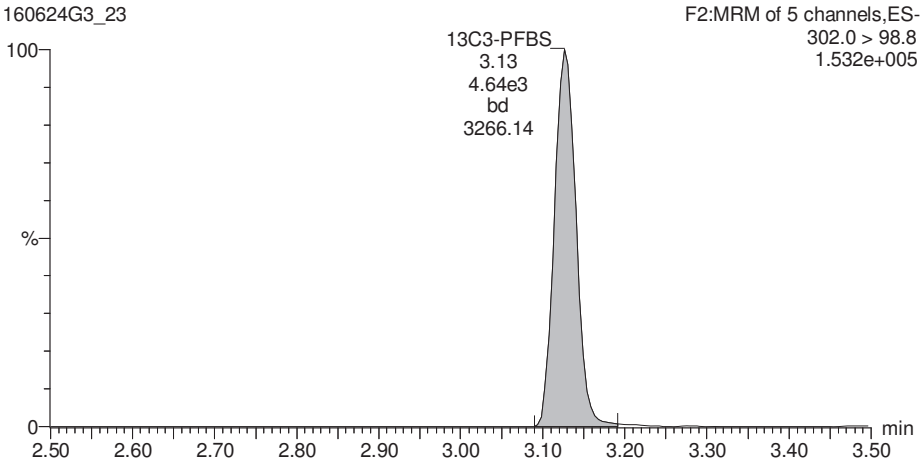
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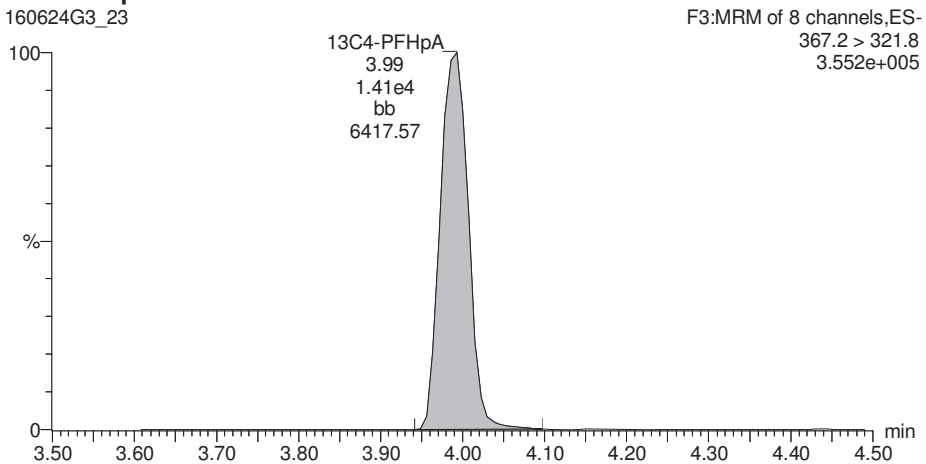
PFHpA



13C3-PFBS



13C4-PFHpA



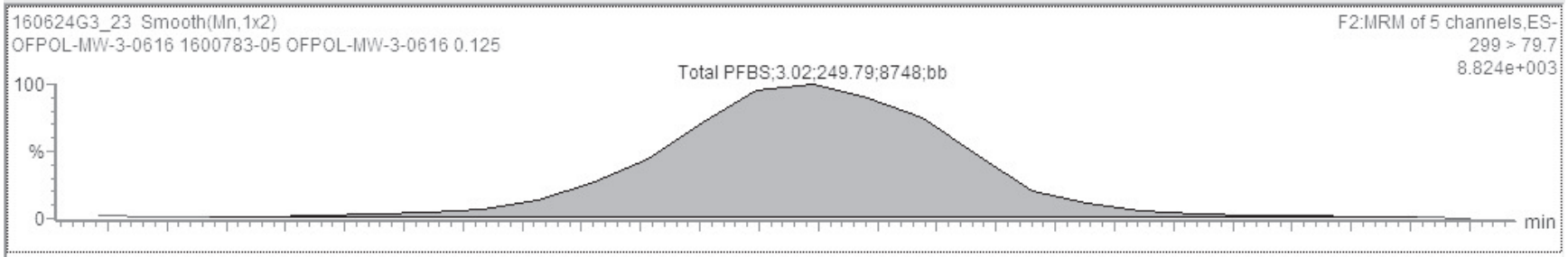
Reviewed: WJL 6/30/16 BR 6/29/16

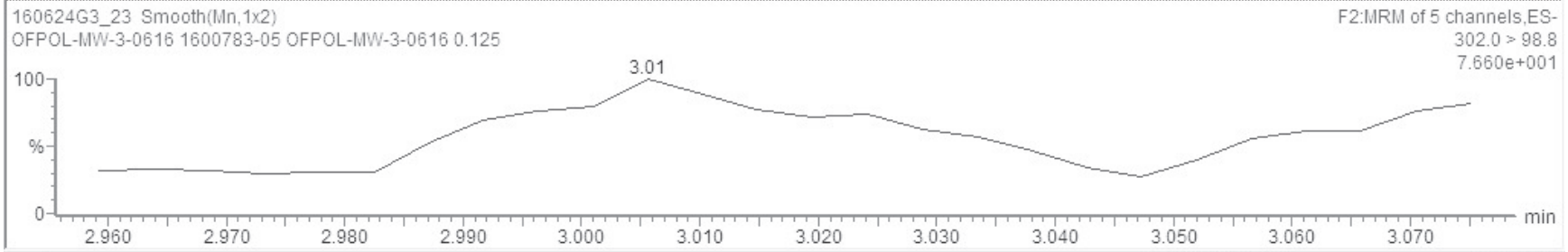
TargetLynx - 160624G3_23.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_23 - 1600783-05 OFPOL-MW-3-0616 0.125 - OFPOL-MW-3-0616

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7	13C3-PFBS	115.39130	0.0935	115.0		4.643e3	0.236	3.13	7	13			0.709	25-Jun-16	05:15:58		1600783-05.
8	13C4-PFHpA	89.770799	0.0282	89.5		1.411e4	0.923	3.99	8	13			0.906	25-Jun-16	05:15:58		1600783-05.
9	18O2-PFHxS	86.923439	0.0763	86.6		1.894e3	0.471	4.10	9	14			0.931	25-Jun-16	05:15:58		1600783-05.
10	13C2-PFOA	89.706904	0.0344	89.4		1.024e4	1.088	4.41	10	15			1.000	25-Jun-16	05:15:58		1600783-05.
11	13C8-PFOS	72.785054	0.0726	72.5		2.713e3	1.142	4.83	11	16			0.999	25-Jun-16	05:15:58		1600783-05.
12	13C5-PFNA	73.126704	0.0382	72.9		1.459e4	1.008	4.78	12	17			1.000	25-Jun-16	05:15:58		1600783-05.
13	13C5-PFHxA	100.32908	0.0455	100.0		1.710e4	1.000	3.47	13	13			0.000	25-Jun-16	05:15:58		1600783-05.
14	13C3-PFHxS	100.32908	0.453	100.0		4.640e3	1.000	4.10	14	14			0.000	25-Jun-16	05:15:58		1600783-05.
15	13C8-PFOA	100.32908	0.0118	100.0		1.053e4	1.000	4.41	15	15			0.000	25-Jun-16	05:15:58		1600783-05.
16	13C4-PFOS	100.32908	0.132	100.0		3.274e3	1.000	4.83	16	16			0.000	25-Jun-16	05:15:58		1600783-05.
17	13C9-PFNA	100.32908	0.0890	100.0		1.985e4	1.000	4.78	17	17			0.000	25-Jun-16	05:15:58		1600783-05.
18	Total PFBS	335.06278							18	7				25-Jun-16	05:15:58		1600783-05.
19	Total PFHxS	7458.6698							19	9				25-Jun-16	05:15:58		1600783-05.
20	Total PFOA	6191.6239							20	10				25-Jun-16	05:15:58		1600783-05.





Ready 160624G3_23 CAP NUM

Reviewed: WJL 6/30/16 BR 6/29/16

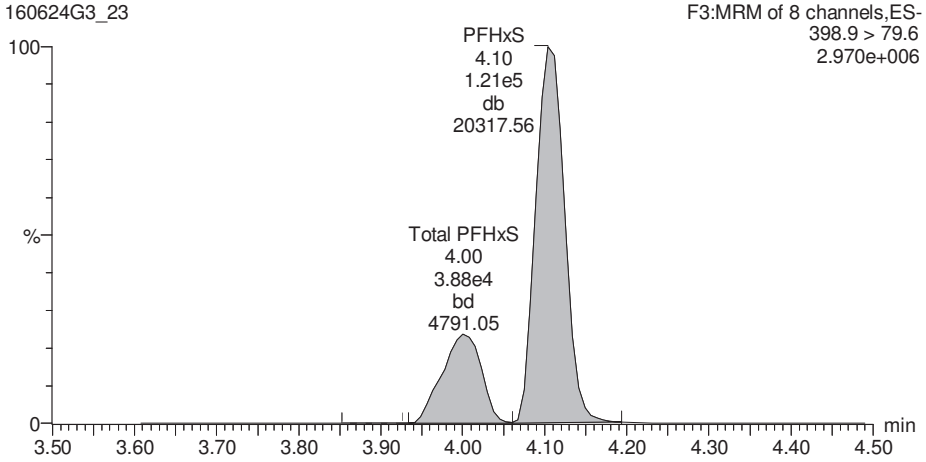
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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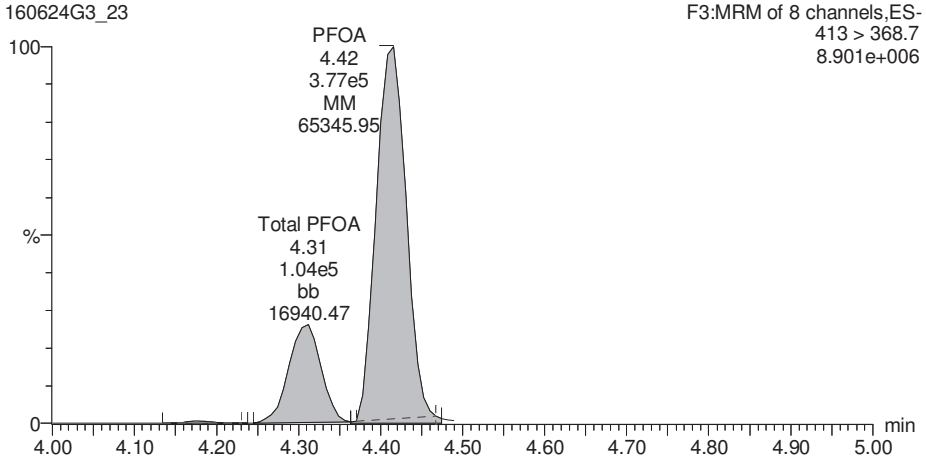
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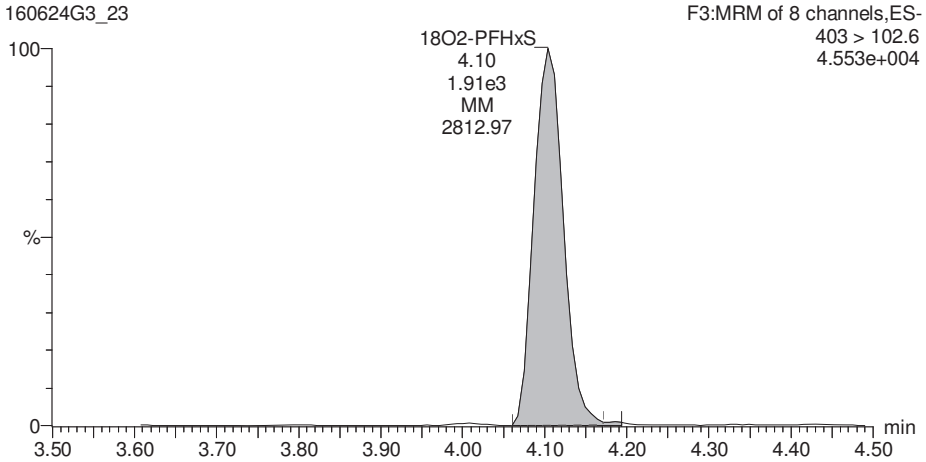
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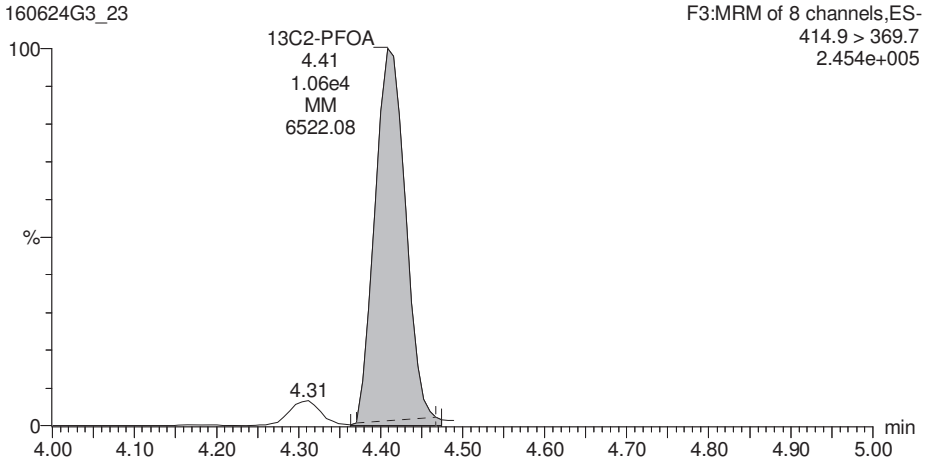
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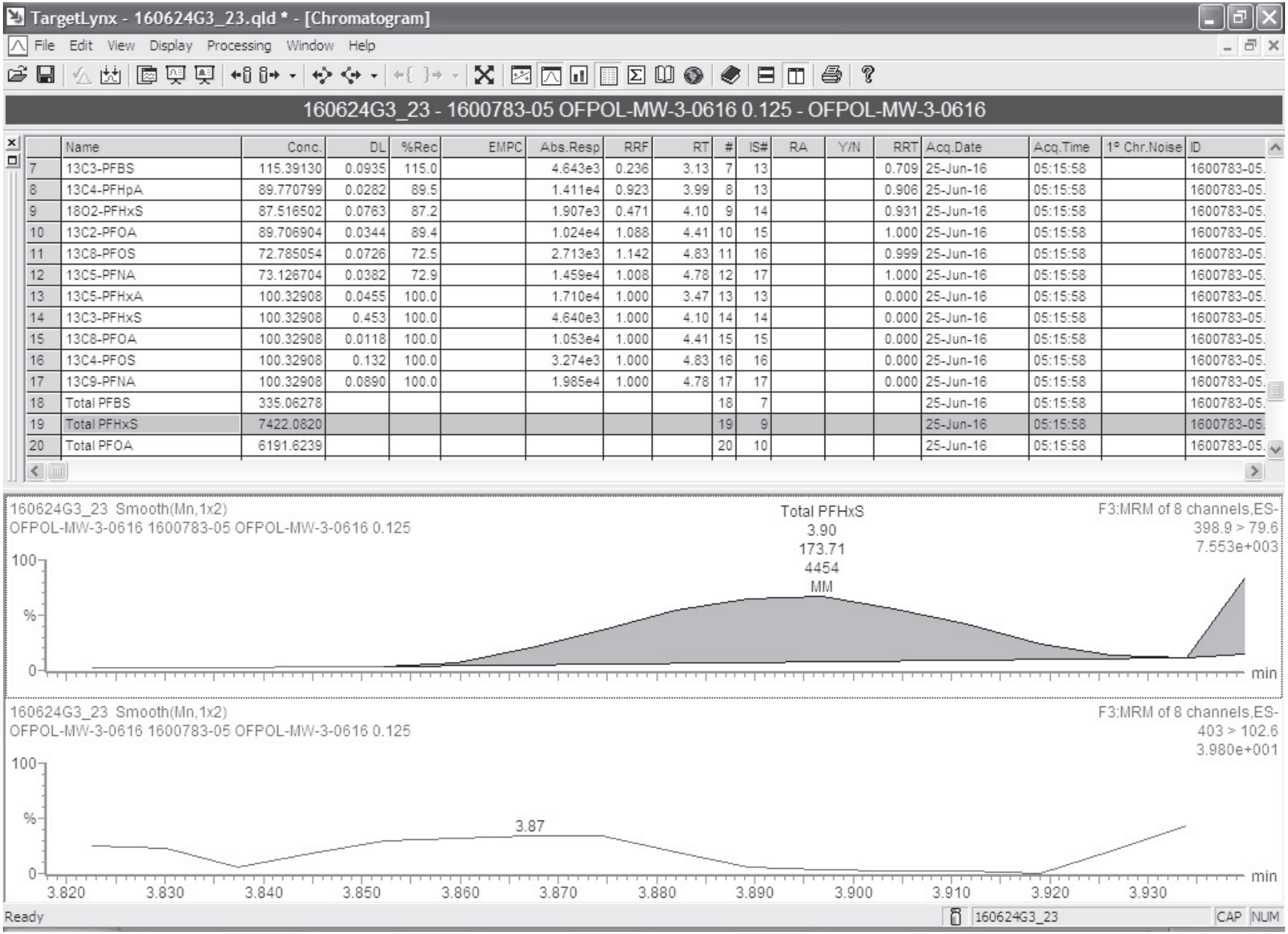
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 BR 6/29/16



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7	13C3-PFBS	115.39130	0.0935	115.0		4.643e3	0.236	3.13	7	13			0.709	25-Jun-16	05:15:58		1600783-05.
8	13C4-PFHpA	89.770799	0.0282	89.5		1.411e4	0.923	3.99	8	13			0.906	25-Jun-16	05:15:58		1600783-05.
9	18O2-PFHxS	87.516502	0.0763	87.2		1.907e3	0.471	4.10	9	14			0.931	25-Jun-16	05:15:58		1600783-05.
10	13C2-PFOA	89.706904	0.0344	89.4		1.024e4	1.088	4.41	10	15			1.000	25-Jun-16	05:15:58		1600783-05.
11	13C8-PFOS	72.785054	0.0726	72.5		2.713e3	1.142	4.83	11	16			0.999	25-Jun-16	05:15:58		1600783-05.
12	13C5-PFNA	73.126704	0.0382	72.9		1.459e4	1.008	4.78	12	17			1.000	25-Jun-16	05:15:58		1600783-05.
13	13C5-PFHxA	100.32908	0.0455	100.0		1.710e4	1.000	3.47	13	13			0.000	25-Jun-16	05:15:58		1600783-05.
14	13C3-PFHxS	100.32908	0.453	100.0		4.640e3	1.000	4.10	14	14			0.000	25-Jun-16	05:15:58		1600783-05.
15	13C8-PFOA	100.32908	0.0118	100.0		1.053e4	1.000	4.41	15	15			0.000	25-Jun-16	05:15:58		1600783-05.
16	13C4-PFOS	100.32908	0.132	100.0		3.274e3	1.000	4.83	16	16			0.000	25-Jun-16	05:15:58		1600783-05.
17	13C9-PFNA	100.32908	0.0890	100.0		1.985e4	1.000	4.78	17	17			0.000	25-Jun-16	05:15:58		1600783-05.
18	Total PFBS	335.06278							18	7				25-Jun-16	05:15:58		1600783-05.
19	Total PFHxS	7422.0820							19	9				25-Jun-16	05:15:58		1600783-05.
20	Total PFOA	6191.6239							20	10				25-Jun-16	05:15:58		1600783-05.

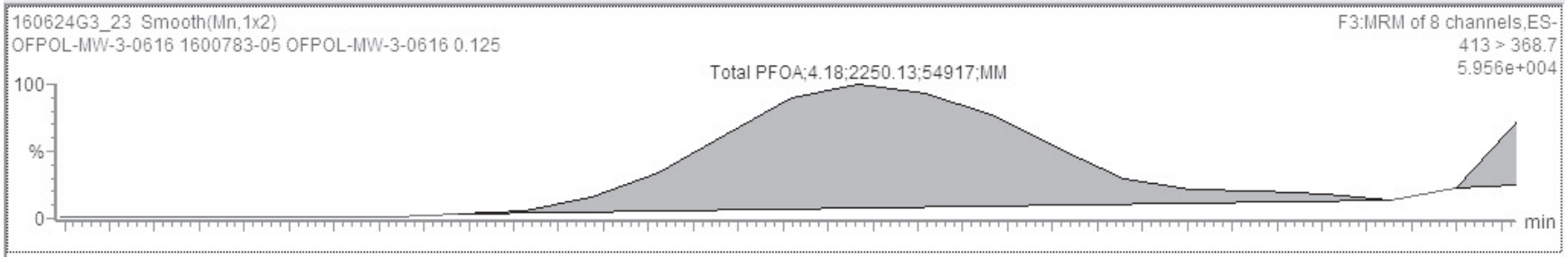
Reviewed: WJL 6/30/16 BR 6/29/16

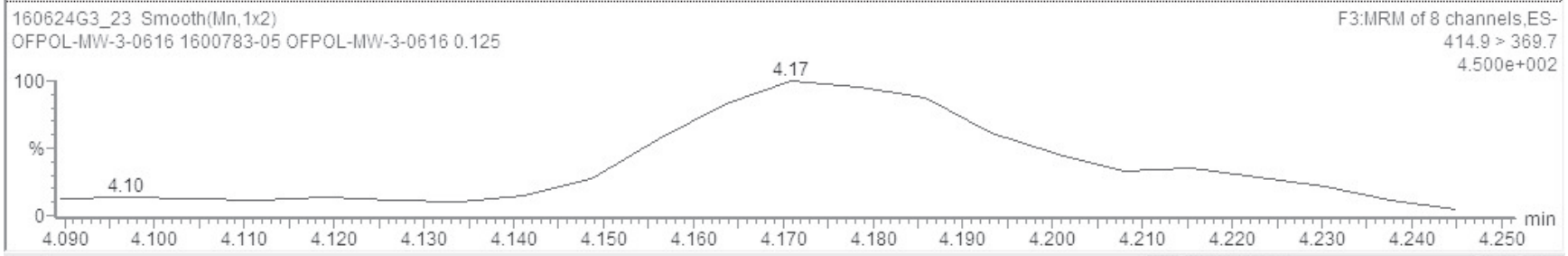
TargetLynx - 160624G3_23.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_23 - 1600783-05 OFPOL-MW-3-0616 0.125 - OFPOL-MW-3-0616

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7	13C3-PFBS	115.39130	0.0935	115.0		4.643e3	0.236	3.13	7	13			0.709	25-Jun-16	05:15:58		1600783-05.
8	13C4-PFHpA	89.770799	0.0282	89.5		1.411e4	0.923	3.99	8	13			0.906	25-Jun-16	05:15:58		1600783-05.
9	18O2-PFHxS	87.516502	0.0763	87.2		1.907e3	0.471	4.10	9	14			0.931	25-Jun-16	05:15:58		1600783-05.
10	13C2-PFOA	93.049929	0.0344	92.7		1.062e4	1.088	4.41	10	15			1.000	25-Jun-16	05:15:58		1600783-05.
11	13C8-PFOS	72.785054	0.0726	72.5		2.713e3	1.142	4.83	11	16			0.999	25-Jun-16	05:15:58		1600783-05.
12	13C5-PFNA	73.126704	0.0382	72.9		1.459e4	1.008	4.78	12	17			1.000	25-Jun-16	05:15:58		1600783-05.
13	13C5-PFHxA	100.32908	0.0455	100.0		1.710e4	1.000	3.47	13	13			0.000	25-Jun-16	05:15:58		1600783-05.
14	13C3-PFHxS	100.32908	0.453	100.0		4.640e3	1.000	4.10	14	14			0.000	25-Jun-16	05:15:58		1600783-05.
15	13C8-PFOA	100.32908	0.0118	100.0		1.053e4	1.000	4.41	15	15			0.000	25-Jun-16	05:15:58		1600783-05.
16	13C4-PFOS	100.32908	0.132	100.0		3.274e3	1.000	4.83	16	16			0.000	25-Jun-16	05:15:58		1600783-05.
17	13C9-PFNA	100.32908	0.0890	100.0		1.985e4	1.000	4.78	17	17			0.000	25-Jun-16	05:15:58		1600783-05.
18	Total PFBS	335.06278							18	7				25-Jun-16	05:15:58		1600783-05.
19	Total PFHxS	7422.0820							19	9				25-Jun-16	05:15:58		1600783-05.
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Ready 160624G3_23 CAP NUM

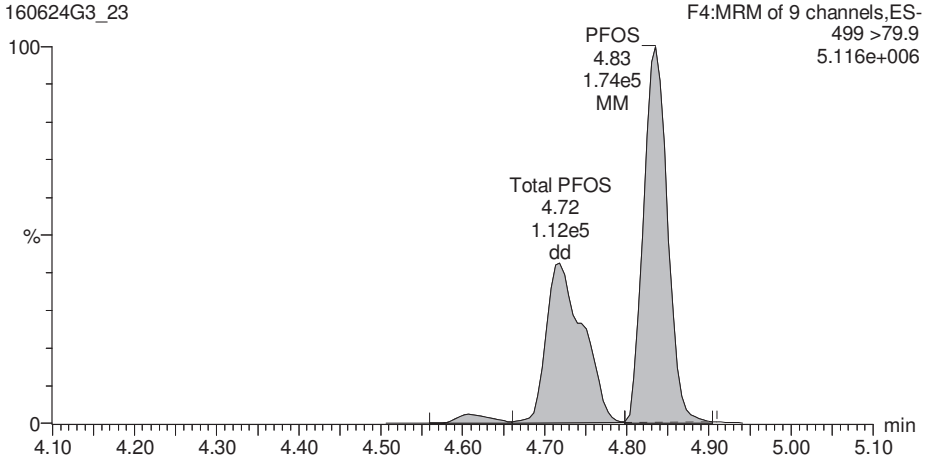
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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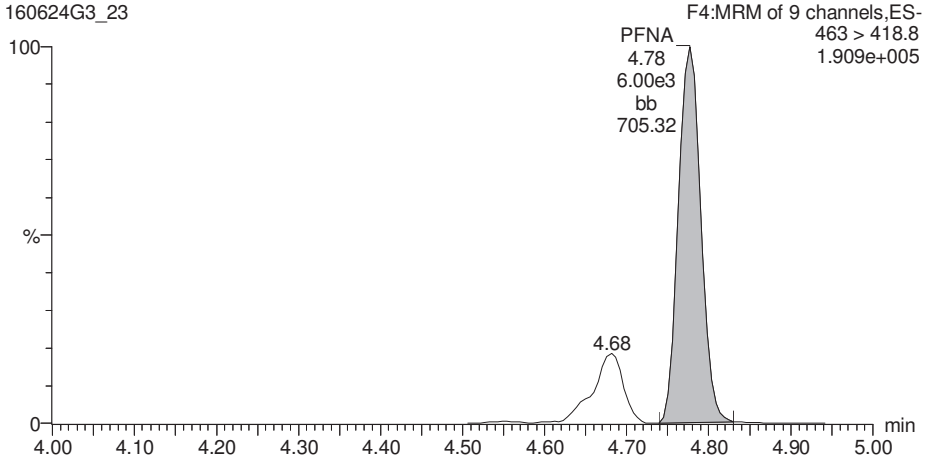
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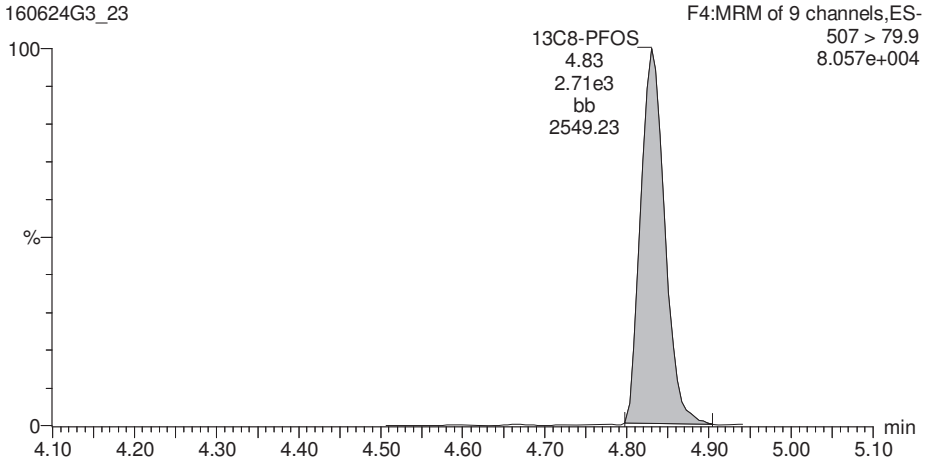
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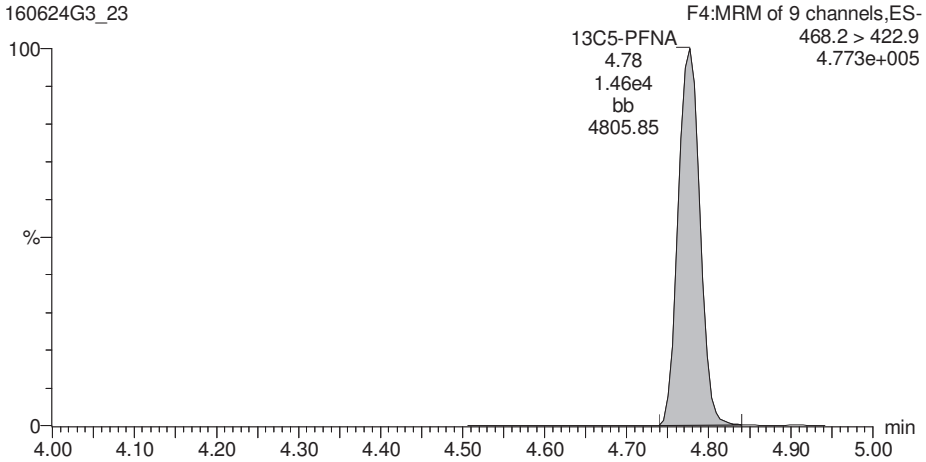
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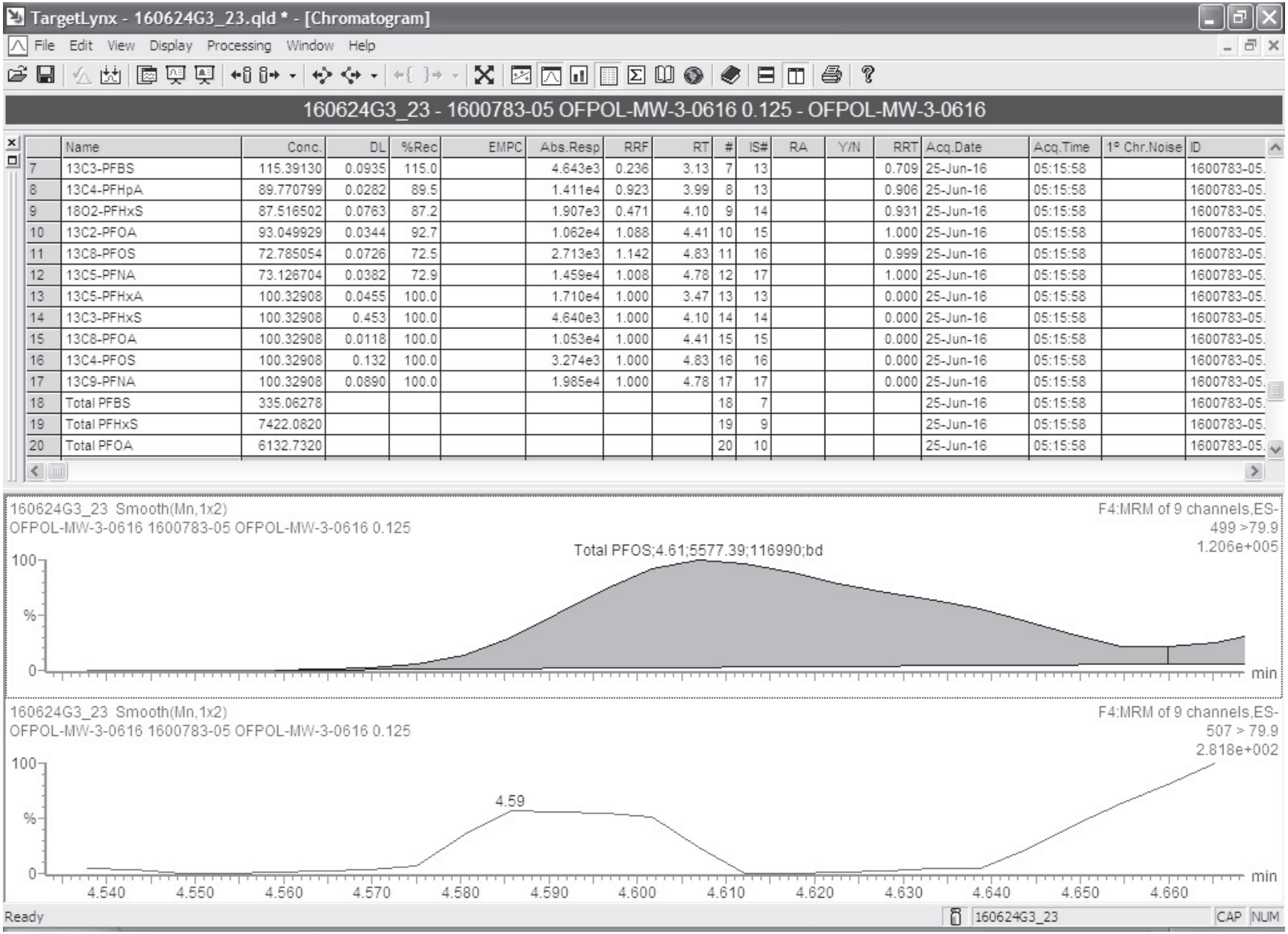
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16



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7	13C3-PFBS	115.39130	0.0935	115.0		4.643e3	0.236	3.13	7	13			0.709	25-Jun-16	05:15:58		1600783-05.
8	13C4-PFHpA	89.770799	0.0282	89.5		1.411e4	0.923	3.99	8	13			0.906	25-Jun-16	05:15:58		1600783-05.
9	18O2-PFHxS	87.516502	0.0763	87.2		1.907e3	0.471	4.10	9	14			0.931	25-Jun-16	05:15:58		1600783-05.
10	13C2-PFOA	93.049929	0.0344	92.7		1.062e4	1.088	4.41	10	15			1.000	25-Jun-16	05:15:58		1600783-05.
11	13C8-PFOS	72.785054	0.0726	72.5		2.713e3	1.142	4.83	11	16			0.999	25-Jun-16	05:15:58		1600783-05.
12	13C5-PFNA	73.126704	0.0382	72.9		1.459e4	1.008	4.78	12	17			1.000	25-Jun-16	05:15:58		1600783-05.
13	13C5-PFHxA	100.32908	0.0455	100.0		1.710e4	1.000	3.47	13	13			0.000	25-Jun-16	05:15:58		1600783-05.
14	13C3-PFHxS	100.32908	0.453	100.0		4.640e3	1.000	4.10	14	14			0.000	25-Jun-16	05:15:58		1600783-05.
15	13C8-PFOA	100.32908	0.0118	100.0		1.053e4	1.000	4.41	15	15			0.000	25-Jun-16	05:15:58		1600783-05.
16	13C4-PFOS	100.32908	0.132	100.0		3.274e3	1.000	4.83	16	16			0.000	25-Jun-16	05:15:58		1600783-05.
17	13C9-PFNA	100.32908	0.0890	100.0		1.985e4	1.000	4.78	17	17			0.000	25-Jun-16	05:15:58		1600783-05.
18	Total PFBS	335.06278							18	7				25-Jun-16	05:15:58		1600783-05.
19	Total PFHxS	7422.0820							19	9				25-Jun-16	05:15:58		1600783-05.
20	Total PFOA	6132.7320							20	10				25-Jun-16	05:15:58		1600783-05.

Reviewed: WJL 6/30/16 BR 6/29/16

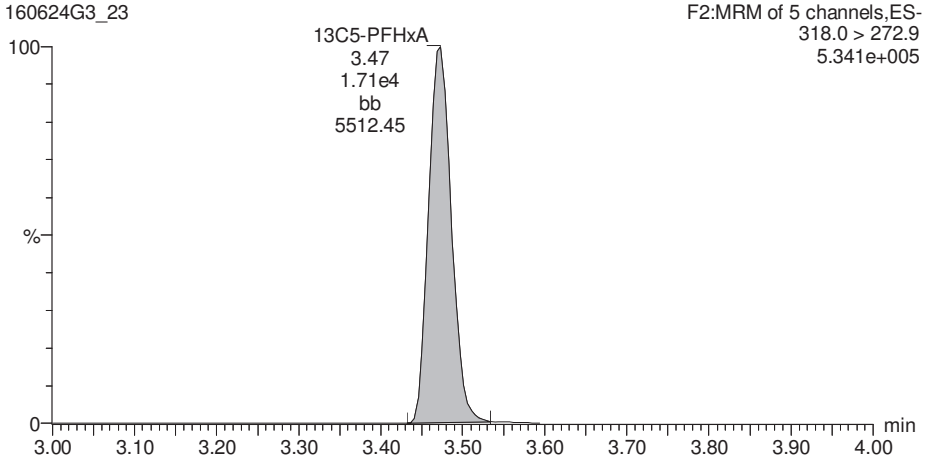
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Vista Analytical Laboratory Q1

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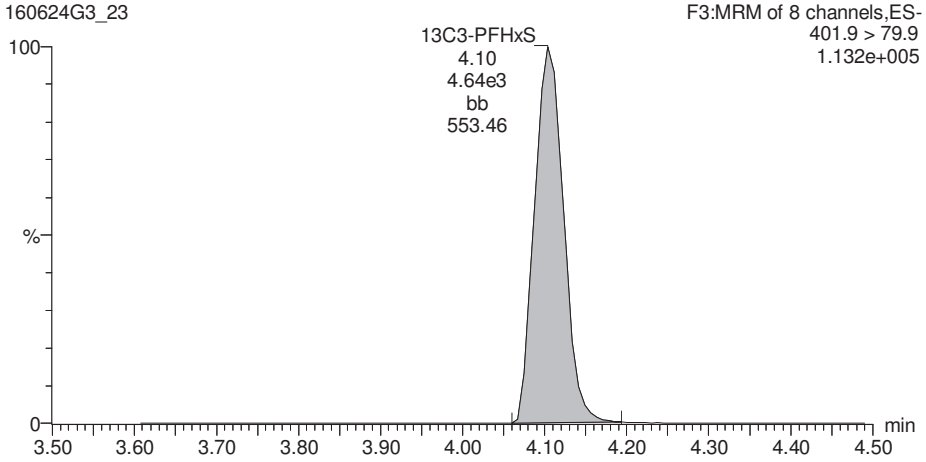
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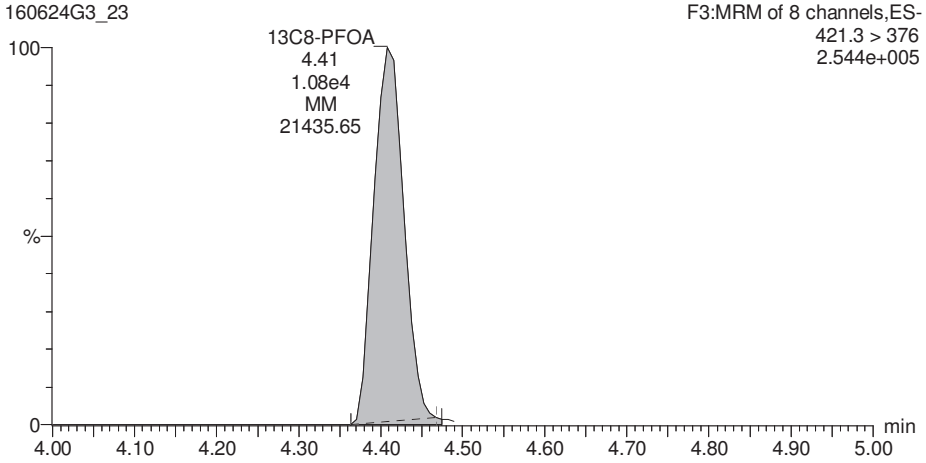
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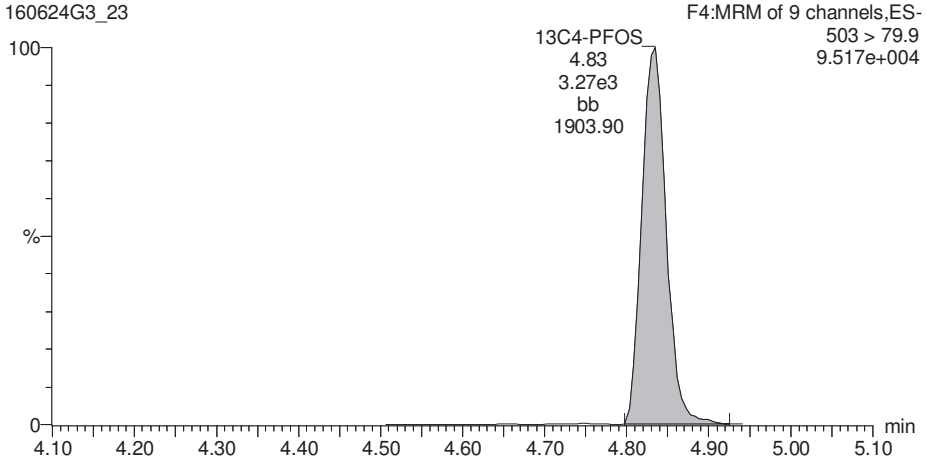
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/29/16

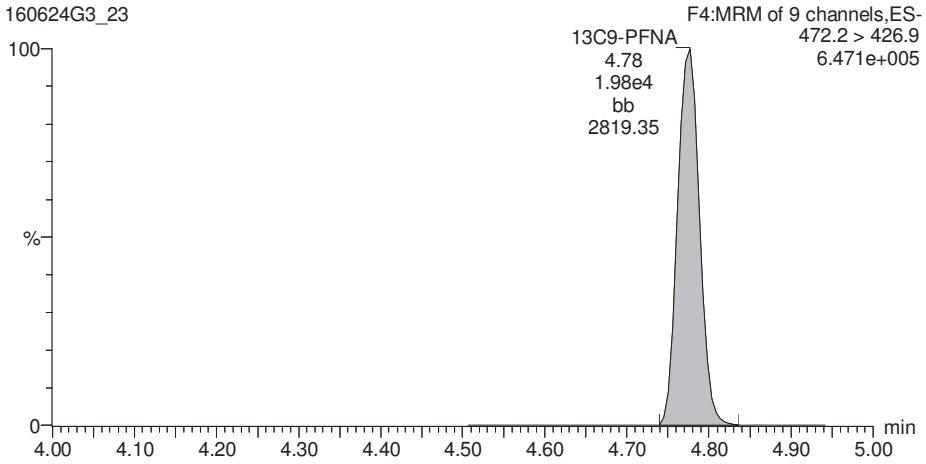
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/29/16

Vista Analytical Laboratory Q1

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1	3	PFHxS	79.91	6.54e3	1.42e2		0.125	4.47	7.20	
2	4	PFOA	368.9	1.88e4	9.75e2		0.125	4.74	4.57	
3	5	PFOS	79.92	1.45e4	1.84e2		0.125	5.12	11.6	
4	9	18O2-PFHxS	102.9	1.42e2	5.68e2	0.307	0.125	4.47	0.0817	81.4
5	10	13C2-PFOA	369.9	9.75e2	1.12e3	1.042	0.125	4.74	0.0837	83.4
6	11	13C8-PFOS	79.93	1.84e2	2.40e2	1.026	0.125	5.12	0.0749	74.7
7	14	13C3-PFHxS	80.0	5.68e2	5.68e2	1.000	0.125	4.47	0.100	100.0
8	15	13C8-PFOA	375.9	1.12e3	1.12e3	1.000	0.125	4.74	0.100	100.0
9	16	13C4-PFOS	79.94	2.40e2	2.40e2	1.000	0.125	5.12	0.100	100.0
10	19	Total PFHxS	79.91		1.42e2		0.125		8.70	
11	20	Total PFOA	368.9		9.75e2		0.125		5.57	
12	21	Total PFOS	79.92		1.84e2		0.125		17.2	

Target = ug/L

Reviewed: WJL 6/30/16

pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_61.qld

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Printed: Thursday, June 30, 2016 11:44:40 Pacific Daylight Time

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_61.wiff, Date: 29-Jun-2016, Time: 04:09:21, ID: 1600783-05@10x, Description: OFPOL-MW-3-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	4.70e2	6.97e2	0.334
2	18	Total PFBS	79.9	3.35	1.06e1	6.97e2	0.00754

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	6.54e3	1.42e2	7.20
2	19	Total PFHxS	79.91	4.37	1.35e3	1.42e2	1.48
3	19	Total PFHxS	79.91	4.26	1.94e1	1.42e2	0.0214

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	368.9	4.53	4.61e1	9.75e2	0.0112
2	4	PFOA	368.9	4.74	1.88e4	9.75e2	4.57
3	20	Total PFOA	368.9	4.65	4.06e3	9.75e2	0.986

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.12	1.45e4	1.84e2	11.6
2	21	Total PFOS	79.92	5.02	6.63e3	1.84e2	5.28
3	21	Total PFOS	79.92	4.92	4.53e2	1.84e2	0.361

Reviewed: WJL 6/30/16 pw 6/30/16

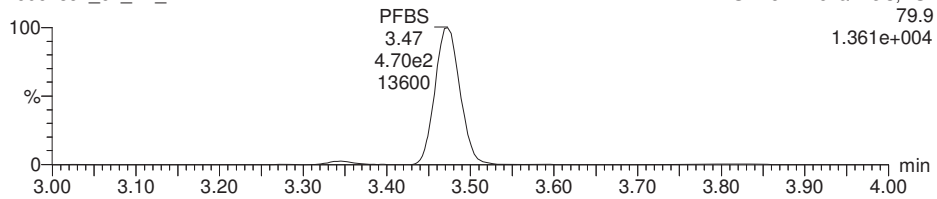
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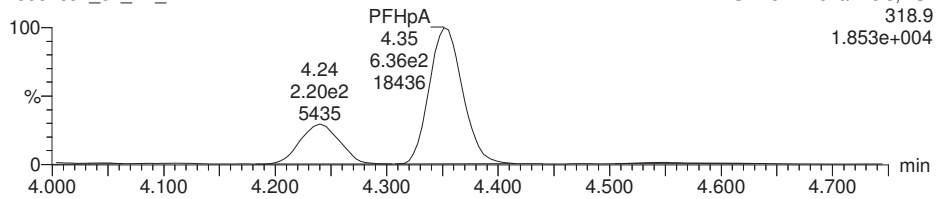
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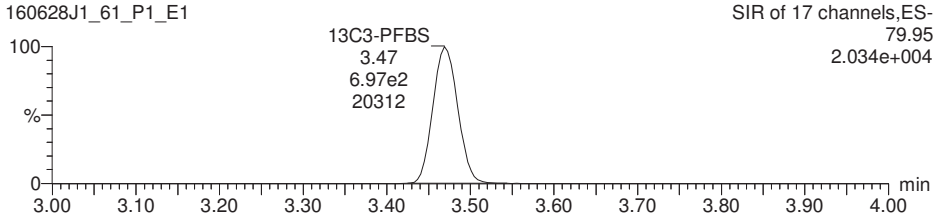
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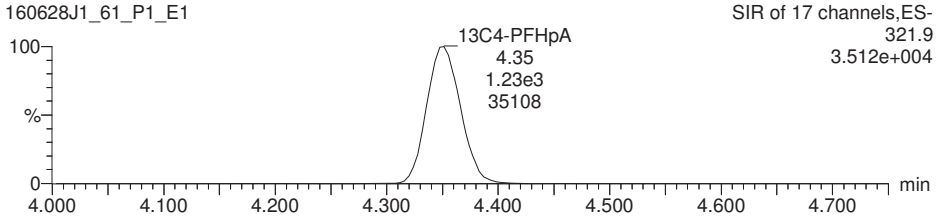
PFHpA



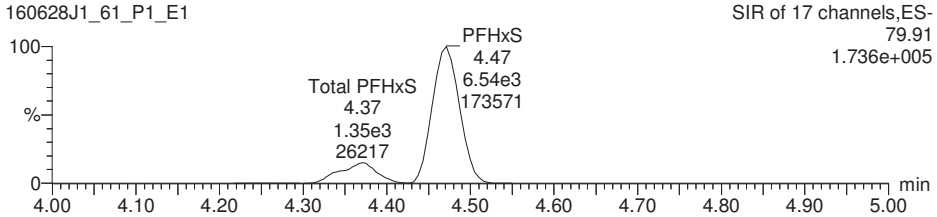
13C3-PFBS



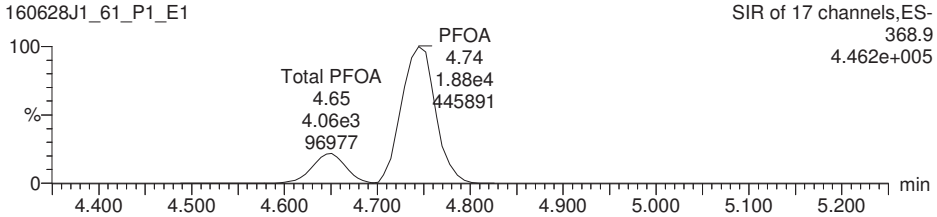
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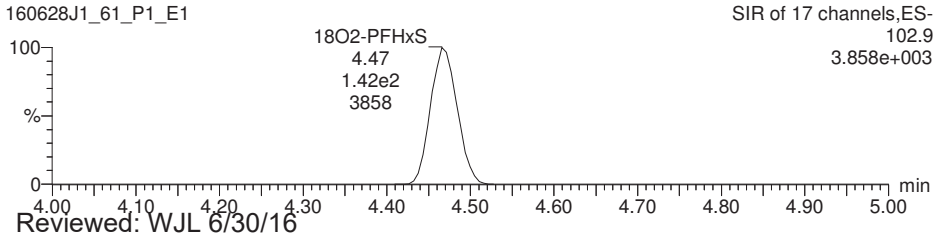
PFHxS



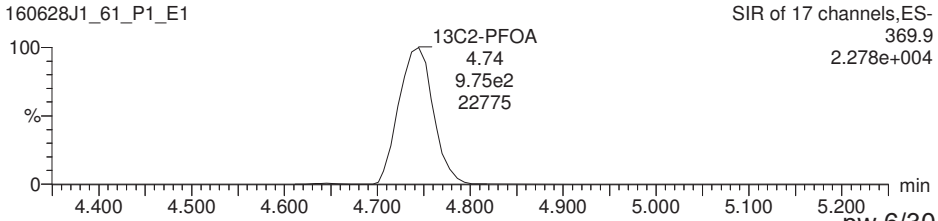
PFOA



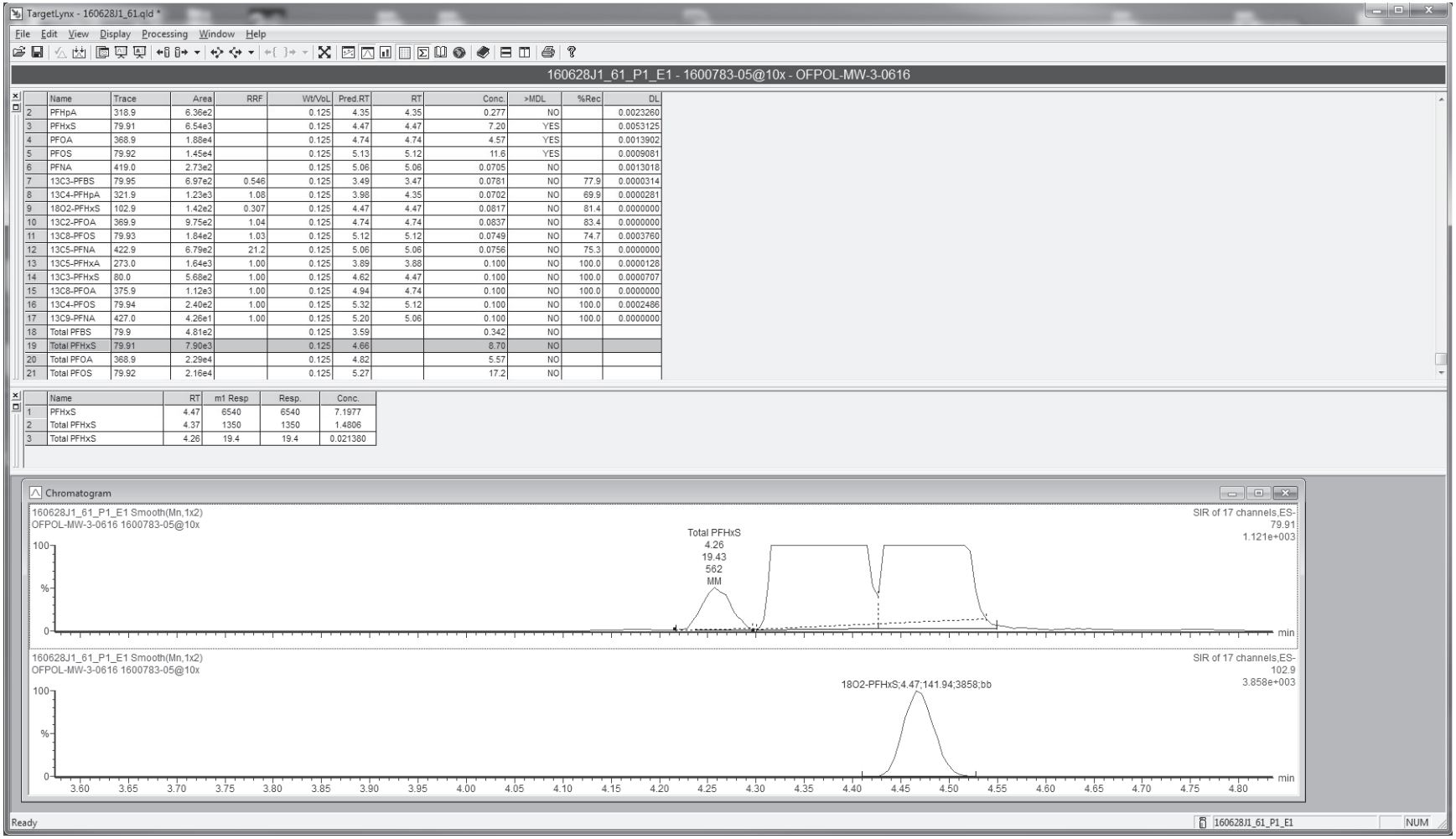
18O2-PFHxS



13C2-PFOA



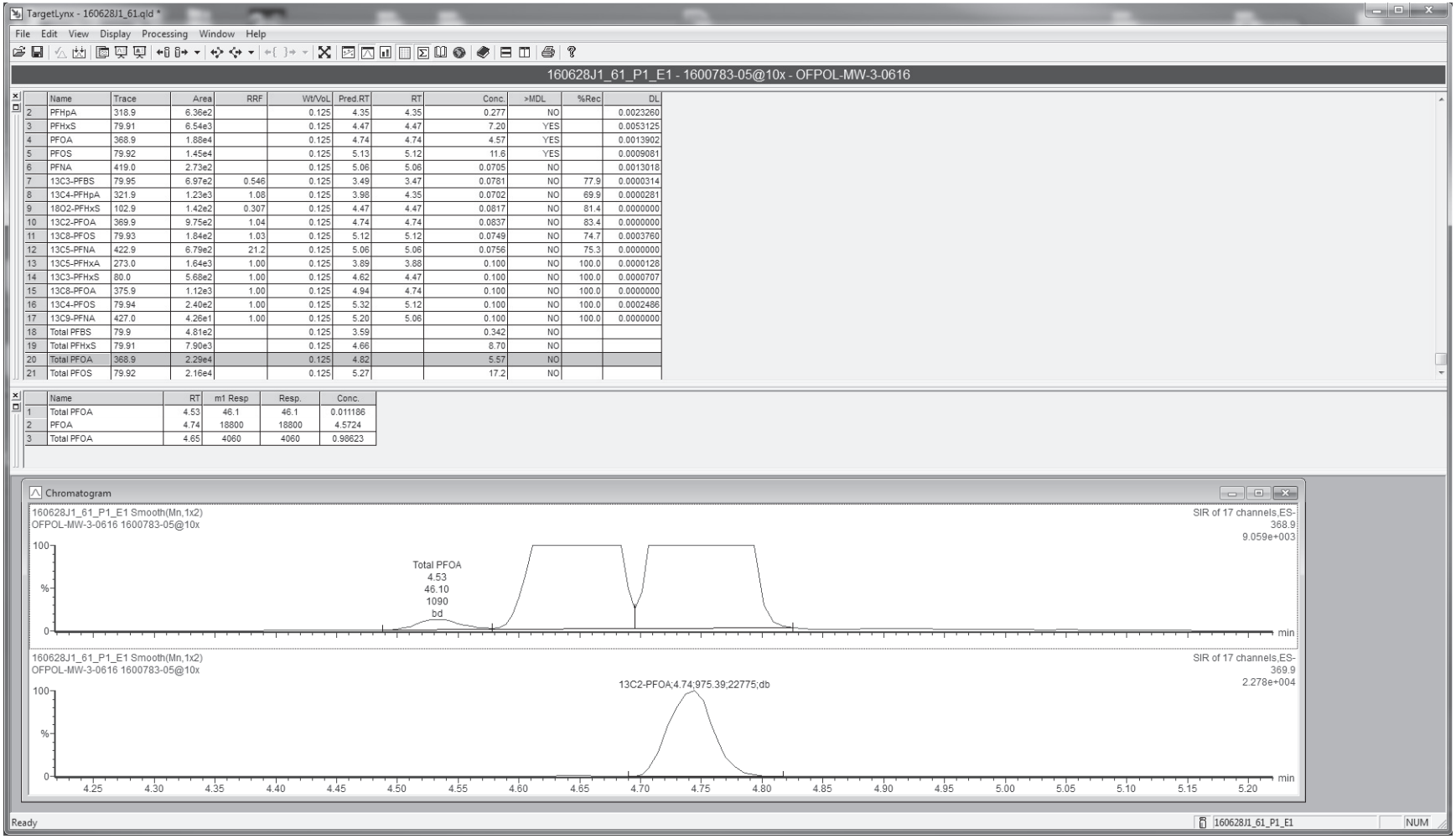
Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.125	4.35	4.35	0.277	NO		0.0023260
3	PFHxS	79.91	6.54e3		0.125	4.47	4.47	7.20	YES		0.0053125
4	PFOA	368.9	1.88e4		0.125	4.74	4.74	4.57	YES		0.0013902
5	PFOS	79.92	1.45e4		0.125	5.13	5.12	11.6	YES		0.0009081
6	PFNA	419.0	2.73e2		0.125	5.06	5.06	0.0705	NO		0.0013018
7	13C3-PFBS	79.95	6.97e2	0.546	0.125	3.49	3.47	0.0781	NO	77.9	0.0000314
8	13C4-PFHpA	321.9	1.23e3	1.08	0.125	3.98	4.35	0.0702	NO	69.9	0.0000281
9	18O2-PFHxS	102.9	1.42e2	0.307	0.125	4.47	4.47	0.0817	NO	81.4	0.0000000
10	13C2-PFOA	369.9	9.75e2	1.04	0.125	4.74	4.74	0.0837	NO	83.4	0.0000000
11	13C8-PFOS	79.93	1.84e2	1.03	0.125	5.12	5.12	0.0749	NO	74.7	0.0003760
12	13C5-PFNA	422.9	6.79e2	21.2	0.125	5.06	5.06	0.0756	NO	75.3	0.0000000
13	13C5-PFHxA	273.0	1.64e3	1.00	0.125	3.89	3.88	0.100	NO	100.0	0.0000128
14	13C3-PFHxS	80.0	5.68e2	1.00	0.125	4.62	4.47	0.100	NO	100.0	0.0000707
15	13C8-PFOA	375.9	1.12e3	1.00	0.125	4.94	4.74	0.100	NO	100.0	0.0000000
16	13C4-PFOS	79.94	2.40e2	1.00	0.125	5.32	5.12	0.100	NO	100.0	0.0002486
17	13C9-PFNA	427.0	4.26e1	1.00	0.125	5.20	5.06	0.100	NO	100.0	0.0000000
18	Total PFBS	79.9	4.81e2		0.125	3.59		0.342	NO		
19	Total PFHxS	79.91	7.90e3		0.125	4.66		8.70	NO		
20	Total PFOA	368.9	2.29e4		0.125	4.82		5.57	NO		
21	Total PFOS	79.92	2.16e4		0.125	5.27		17.2	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	6540	6540	7.1977
2	Total PFHxS	4.37	1350	1350	1.4806
3	Total PFHxS	4.26	19.4	19.4	0.021380

Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.125	4.35	4.35	0.277	NO		0.0023260
3	PFHxS	79.91	6.54e3		0.125	4.47	4.47	7.20	YES		0.0053125
4	PFOA	368.9	1.88e4		0.125	4.74	4.74	4.57	YES		0.0013902
5	PFOS	79.92	1.45e4		0.125	5.13	5.12	11.6	YES		0.0009081
6	PFNA	419.0	2.73e2		0.125	5.06	5.06	0.0705	NO		0.0013018
7	13C3-PFBS	79.95	6.97e2	0.546	0.125	3.49	3.47	0.0781	NO	77.9	0.0000314
8	13C4-PFHpA	321.9	1.23e3	1.08	0.125	3.98	4.35	0.0702	NO	69.9	0.0000281
9	18O2-PFHxS	102.9	1.42e2	0.307	0.125	4.47	4.47	0.0817	NO	81.4	0.0000000
10	13C2-PFOA	369.9	9.75e2	1.04	0.125	4.74	4.74	0.0837	NO	83.4	0.0000000
11	13C8-PFOS	79.93	1.84e2	1.03	0.125	5.12	5.12	0.0749	NO	74.7	0.0003760
12	13C5-PFNA	422.9	6.79e2	21.2	0.125	5.06	5.06	0.0756	NO	75.3	0.0000000
13	13C5-PFHxA	273.0	1.64e3	1.00	0.125	3.89	3.88	0.100	NO	100.0	0.0000128
14	13C3-PFHxS	80.0	5.68e2	1.00	0.125	4.62	4.47	0.100	NO	100.0	0.0000707
15	13C8-PFOA	375.9	1.12e3	1.00	0.125	4.94	4.74	0.100	NO	100.0	0.0000000
16	13C4-PFOS	79.94	2.40e2	1.00	0.125	5.32	5.12	0.100	NO	100.0	0.0002486
17	13C9-PFNA	427.0	4.26e1	1.00	0.125	5.20	5.06	0.100	NO	100.0	0.0000000
18	Total PFBS	79.9	4.81e2		0.125	3.59		0.342	NO		
19	Total PFHxS	79.91	7.90e3		0.125	4.66		8.70	NO		
20	Total PFOA	368.9	2.29e4		0.125	4.82		5.57	NO		
21	Total PFOS	79.92	2.16e4		0.125	5.27		17.2	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	Total PFOA	4.53	46.1	46.1	0.011186
2	PFOA	4.74	18800	18800	4.5724
3	Total PFOA	4.65	4060	4060	0.98623

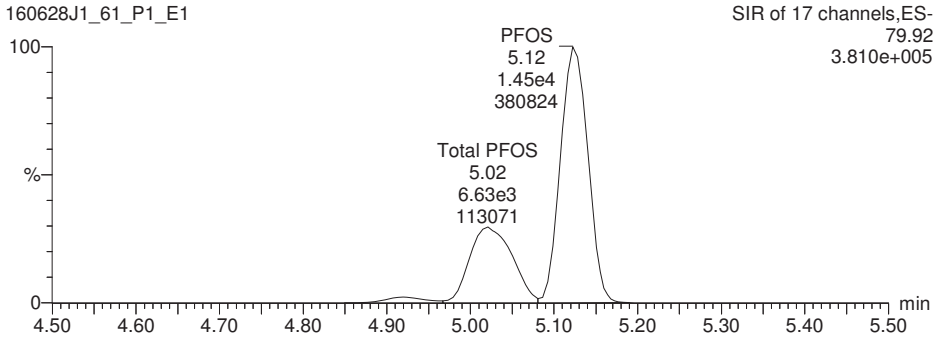
Reviewed: WJL 6/30/16 pw 6/30/16

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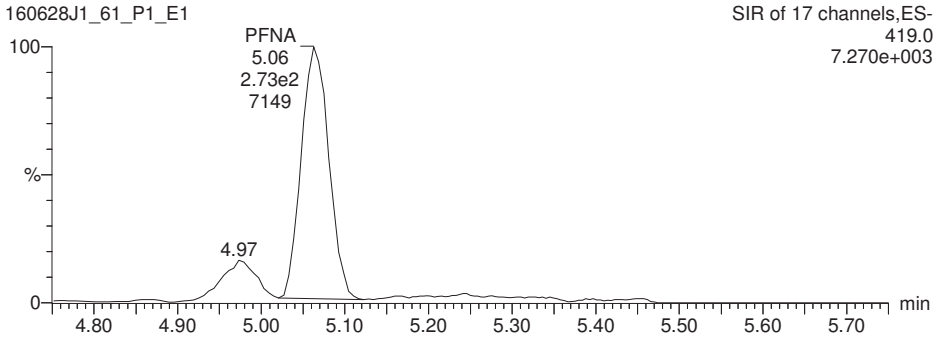
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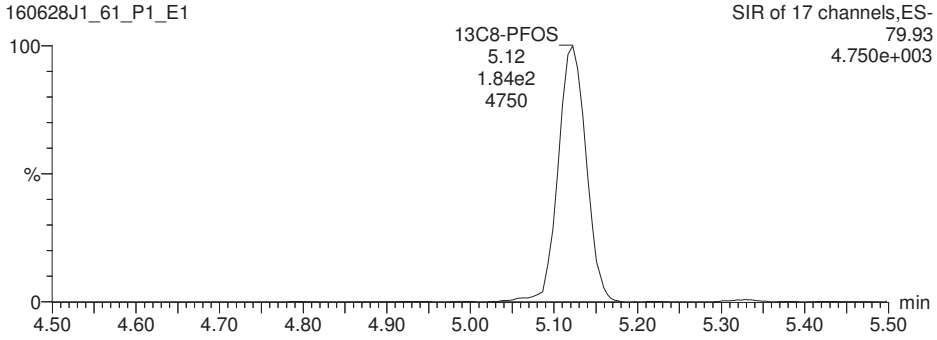
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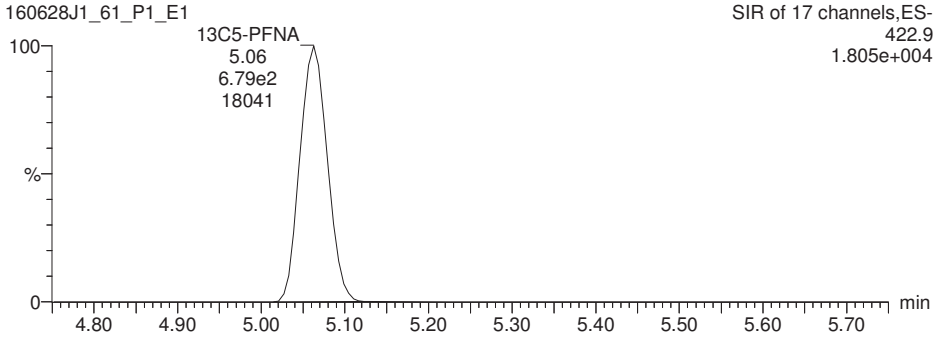
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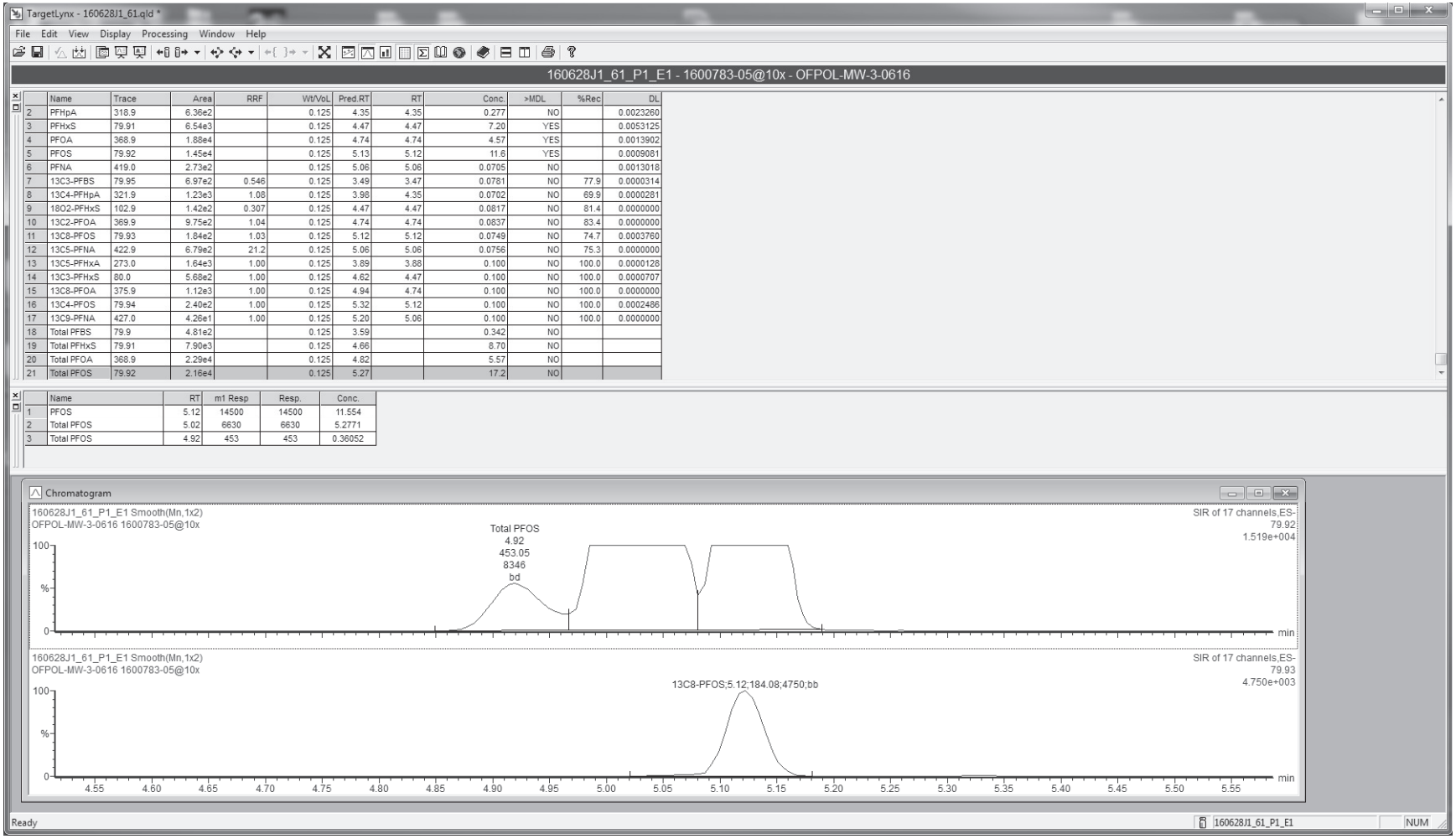
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.125	4.35	4.35	0.277	NO		0.0023260
3	PFHxS	79.91	6.54e3		0.125	4.47	4.47	7.20	YES		0.0053125
4	PFOA	368.9	1.88e4		0.125	4.74	4.74	4.57	YES		0.0013902
5	PFOS	79.92	1.45e4		0.125	5.13	5.12	11.6	YES		0.0009081
6	PFNA	419.0	2.73e2		0.125	5.06	5.06	0.0705	NO		0.0013018
7	13C3-PFBS	79.95	6.97e2	0.546	0.125	3.49	3.47	0.0781	NO	77.9	0.0000314
8	13C4-PFHpA	321.9	1.23e3	1.08	0.125	3.98	4.35	0.0702	NO	69.9	0.0000281
9	18O2-PFHxS	102.9	1.42e2	0.307	0.125	4.47	4.47	0.0817	NO	81.4	0.0000000
10	13C2-PFOA	369.9	9.75e2	1.04	0.125	4.74	4.74	0.0837	NO	83.4	0.0000000
11	13C8-PFOS	79.93	1.84e2	1.03	0.125	5.12	5.12	0.0749	NO	74.7	0.0003760
12	13C5-PFNA	422.9	6.79e2	21.2	0.125	5.06	5.06	0.0756	NO	75.3	0.0000000
13	13C5-PFHxA	273.0	1.64e3	1.00	0.125	3.89	3.88	0.100	NO	100.0	0.0000128
14	13C3-PFHxS	80.0	5.68e2	1.00	0.125	4.62	4.47	0.100	NO	100.0	0.0000707
15	13C8-PFOA	375.9	1.12e3	1.00	0.125	4.94	4.74	0.100	NO	100.0	0.0000000
16	13C4-PFOS	79.94	2.40e2	1.00	0.125	5.32	5.12	0.100	NO	100.0	0.0002486
17	13C9-PFNA	427.0	4.26e1	1.00	0.125	5.20	5.06	0.100	NO	100.0	0.0000000
18	Total PFBS	79.9	4.81e2		0.125	3.59		0.342	NO		
19	Total PFHxS	79.91	7.90e3		0.125	4.66		8.70	NO		
20	Total PFOA	368.9	2.29e4		0.125	4.82		5.57	NO		
21	Total PFOS	79.92	2.16e4		0.125	5.27		17.2	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.12	14500	14500	11.554
2	Total PFOS	5.02	6630	6630	5.2771
3	Total PFOS	4.92	453	453	0.36052

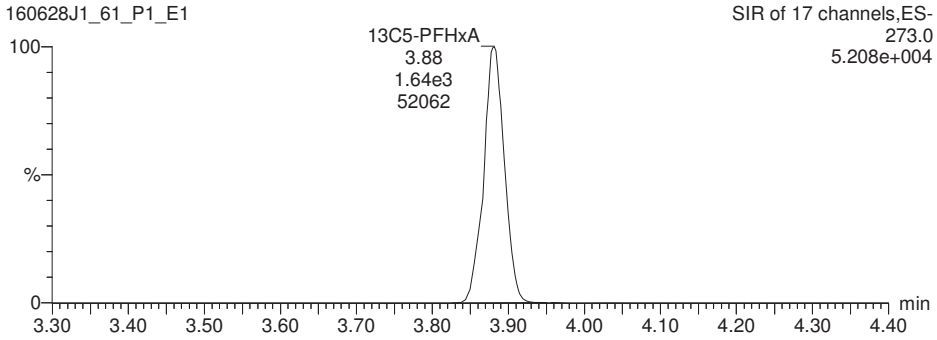
Reviewed: WJL 6/30/16 pw 6/30/16

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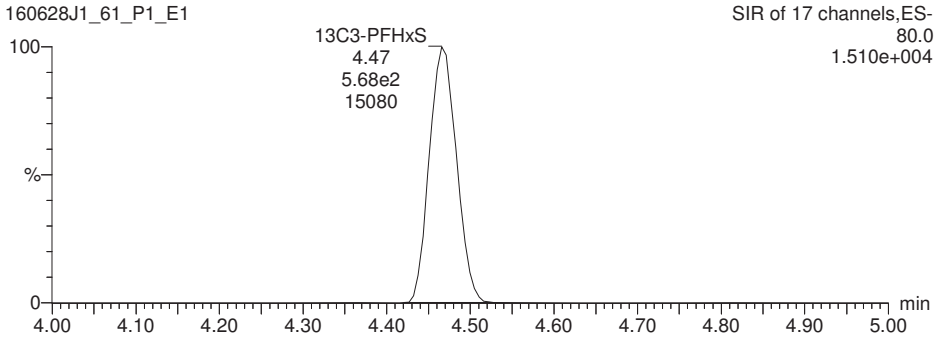
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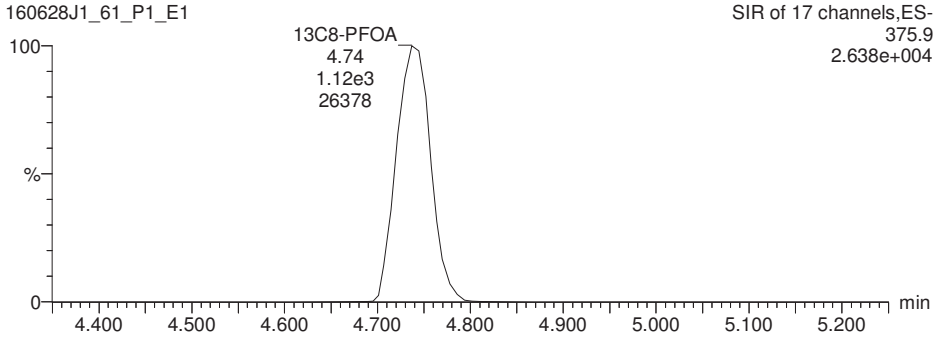
13C5-PFHxA



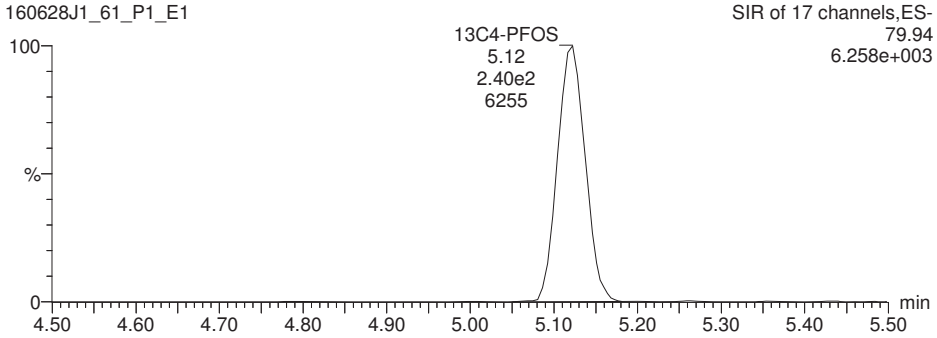
13C3-PFHxS



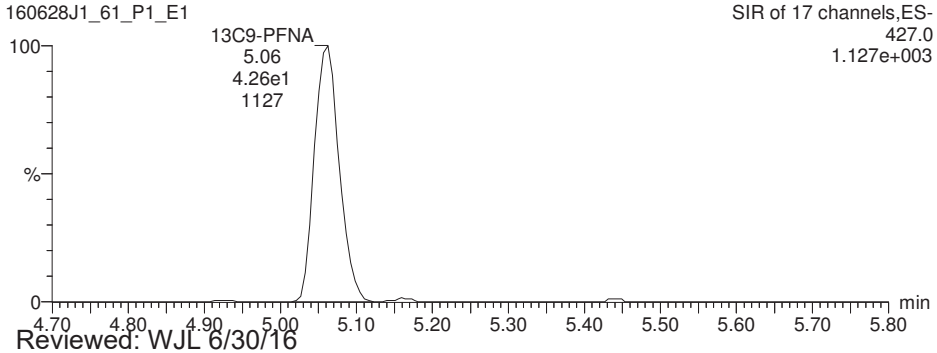
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_24.qld

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Printed: Thursday, June 30, 2016 07:28:51 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-06 OFPOL-MW-3P-0616 0.125, Description: OFPOL-MW-3P-0616, Name: 160624G3_24, Date: 25-Jun-2016, Time: 05:28:38

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	1.292e4	4.331e3		0.113	3.13	390		
2	2	PFHpA	363 > 318.9	3.932e4	1.406e4		0.113	3.99	260		
3	3	PFHxS	398.9 > 79.6	1.120e5	1.910e3		0.113	4.11	5450	E*	
4	4	PFOA	413 > 368.7	3.471e5	1.087e4		0.113	4.42	4760	E*	
5	5	PFOS	499 >79.9	1.306e5	2.637e3		0.113	4.83	9700	E*	
6	6	PFNA	463 > 418.8	4.748e3	1.284e4		0.113	4.78	52.7		
7	7	13C3-PFBS	302.0 > 98.8	4.331e3	1.759e4	0.236	0.113	3.13	116		104
8	8	13C4-PFHpA	367.2 > 321.8	1.406e4	1.759e4	0.923	0.113	3.99	96.1		86.6
9	9	18O2-PFHxS	403 > 102.6	1.910e3	4.522e3	0.471	0.113	4.10	99.4	*	89.6
10	10	13C2-PFOA	414.9 > 369.7	1.087e4	9.982e3	1.088	0.113	4.42	111	*	100
11	11	13C8-PFOS	507 > 79.9	2.637e3	2.745e3	1.142	0.113	4.83	93.3	*	84.1
12	12	13C5-PFNA	468.2 > 422.9	1.284e4	1.618e4	1.008	0.113	4.78	87.3		78.7
13	13	13C5-PFHxA	318.0 > 272.9	1.759e4	1.759e4	1.000	0.113	3.47	111		100
14	14	13C3-PFHxS	401.9 > 79.9	4.522e3	4.522e3	1.000	0.113	4.10	111		100
15	15	13C8-PFOA	421.3 > 376	9.982e3	9.982e3	1.000	0.113	4.42	111		100
16	16	13C4-PFOS	503 > 79.9	2.745e3	2.745e3	1.000	0.113	4.83	111		100
17	17	13C9-PFNA	472.2 > 426.9	1.618e4	1.618e4	1.000	0.113	4.78	111		100
18	18	Total PFBS	299 > 79.7		4.331e3		0.113		397		
19	19	Total PFHxS	398.9 > 79.6		1.910e3		0.113		7750		
20	20	Total PFOA	413 > 368.7		1.087e4		0.113		6190		
21	21	Total PFOS	499 > 79.9		2.637e3		0.113		16800		

*SEE 1:10 DILUTION

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_24.qld

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ID: 1600783-06 OFPOL-MW-3P-0616 0.125, Description: OFPOL-MW-3P-0616, Name: 160624G3_24, Date: 25-Jun-2016, Time: 05:28:38

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	12921.142	4330.536	390.0
2	18	Total PFBS	299 > 79.7	3.02	224.687	4330.536	7.1

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	111992.789	1909.644	5448.9
2	19	Total PFHxS	398.9 > 79.6	4.00	35876.535	1909.644	2282.4
3	19	Total PFHxS	398.9 > 79.6	3.90	182.940	1909.644	14.9

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	347094.594	10872.204	4756.1
2	20	Total PFOA	413 > 368.7	4.31	102855.688	10872.204	1405.5
3	20	Total PFOA	413 > 368.7	4.19	1857.414	10872.204	25.4

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	130601.023	2636.927	9697.3
2	21	Total PFOS	499 >79.9	4.72	84435.984	2636.927	6659.2
3	21	Total PFOS	499 >79.9	4.61	4585.467	2636.927	414.6

Reviewed: WJL 6/30/16

BR 6/30/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

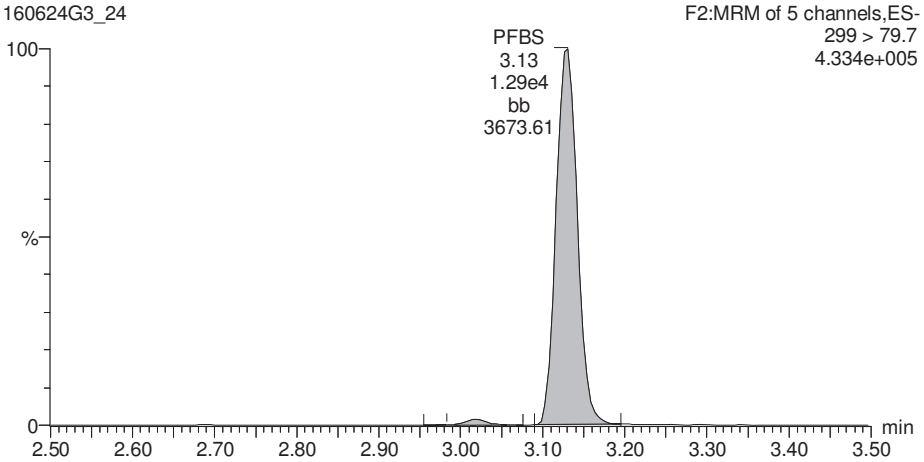
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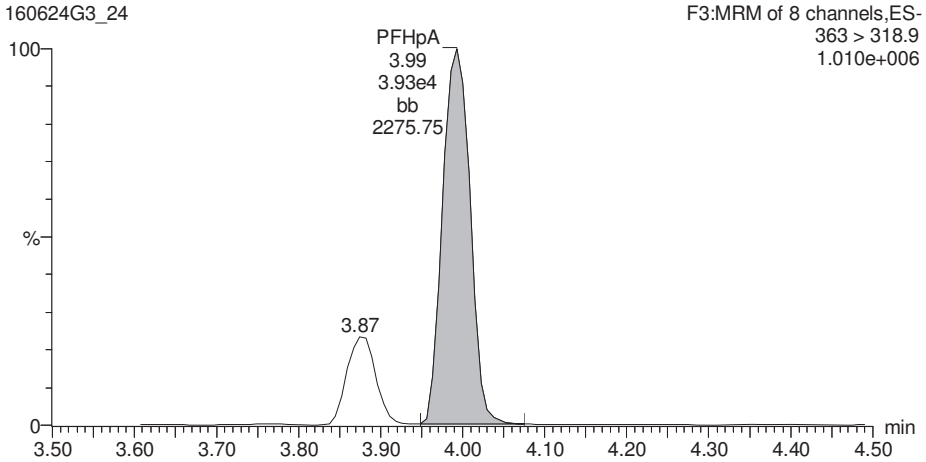
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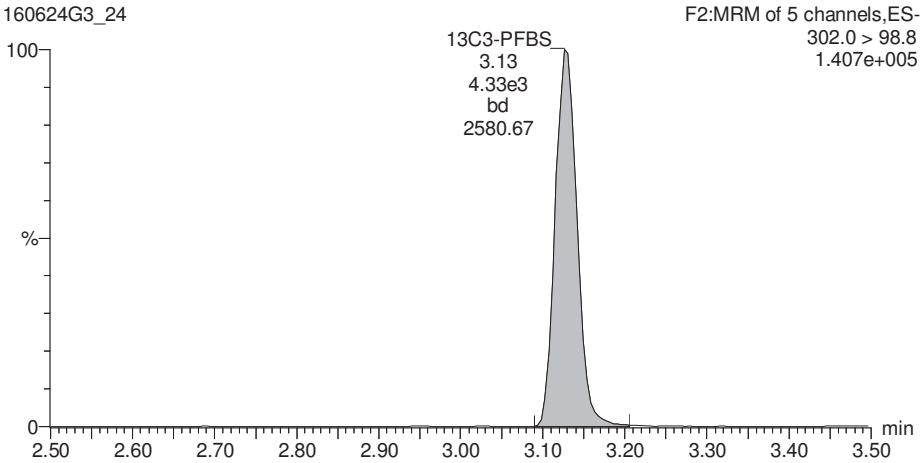
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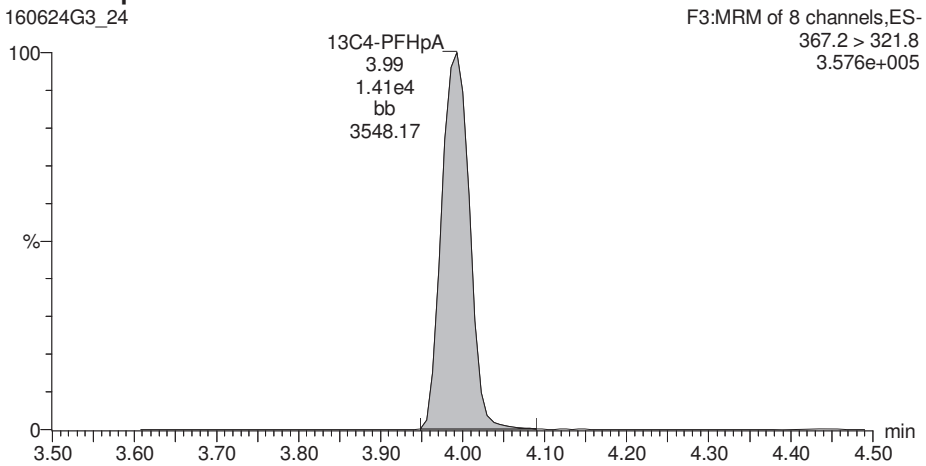
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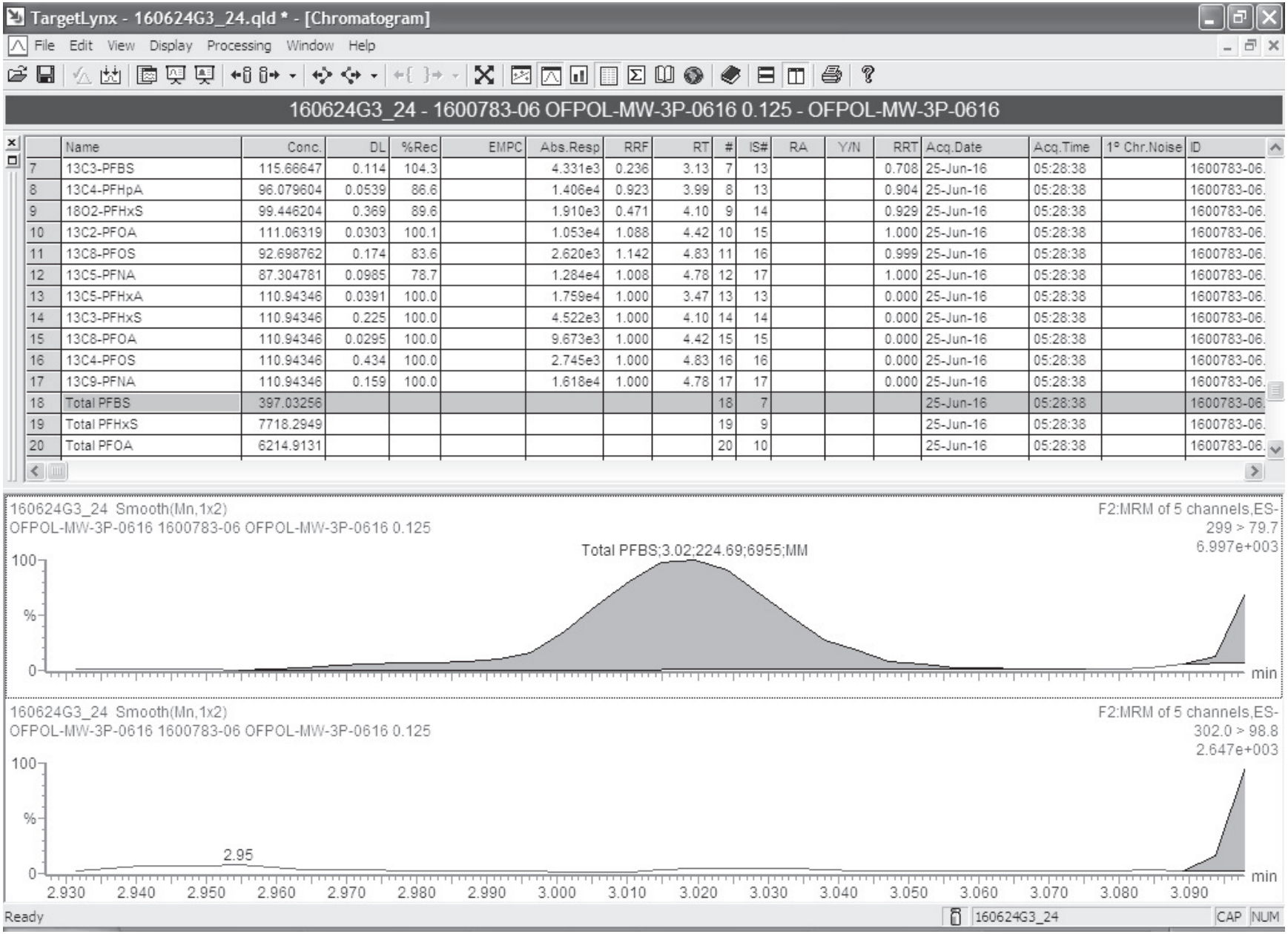
13C3-PFBS



13C4-PFHpA



Reviewed: WJL 6/30/16 BR 6/30/16



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8	13C4-PFHpA	96.079604	0.0539	86.6		1.406e4	0.923	3.99	8	13			0.904	25-Jun-16	05:28:38		1600783-06.
9	18O2-PFHxS	99.446204	0.369	89.6		1.910e3	0.471	4.10	9	14			0.929	25-Jun-16	05:28:38		1600783-06.
10	13C2-PFOA	111.06319	0.0303	100.1		1.053e4	1.088	4.42	10	15			1.000	25-Jun-16	05:28:38		1600783-06.
11	13C8-PFOS	92.698762	0.174	83.6		2.620e3	1.142	4.83	11	16			0.999	25-Jun-16	05:28:38		1600783-06.
12	13C5-PFNA	87.304781	0.0985	78.7		1.284e4	1.008	4.78	12	17			1.000	25-Jun-16	05:28:38		1600783-06.
13	13C5-PFHxA	110.94346	0.0391	100.0		1.759e4	1.000	3.47	13	13			0.000	25-Jun-16	05:28:38		1600783-06.
14	13C3-PFHxS	110.94346	0.225	100.0		4.522e3	1.000	4.10	14	14			0.000	25-Jun-16	05:28:38		1600783-06.
15	13C8-PFOA	110.94346	0.0295	100.0		9.673e3	1.000	4.42	15	15			0.000	25-Jun-16	05:28:38		1600783-06.
16	13C4-PFOS	110.94346	0.434	100.0		2.745e3	1.000	4.83	16	16			0.000	25-Jun-16	05:28:38		1600783-06.
17	13C9-PFNA	110.94346	0.159	100.0		1.618e4	1.000	4.78	17	17			0.000	25-Jun-16	05:28:38		1600783-06.
18	Total PFBS	397.03256							18	7				25-Jun-16	05:28:38		1600783-06.
19	Total PFHxS	7718.2949							19	9				25-Jun-16	05:28:38		1600783-06.
20	Total PFOA	6214.9131							20	10				25-Jun-16	05:28:38		1600783-06.

Reviewed: WJL 6/30/16 BR 6/30/16

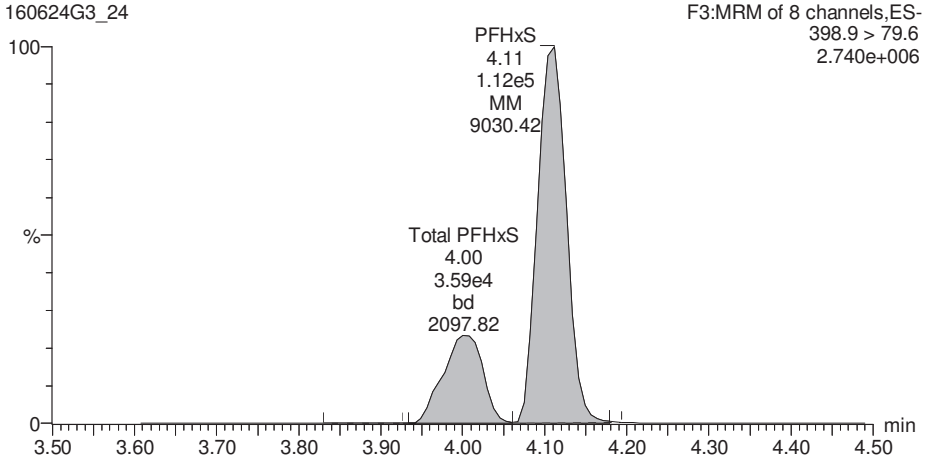
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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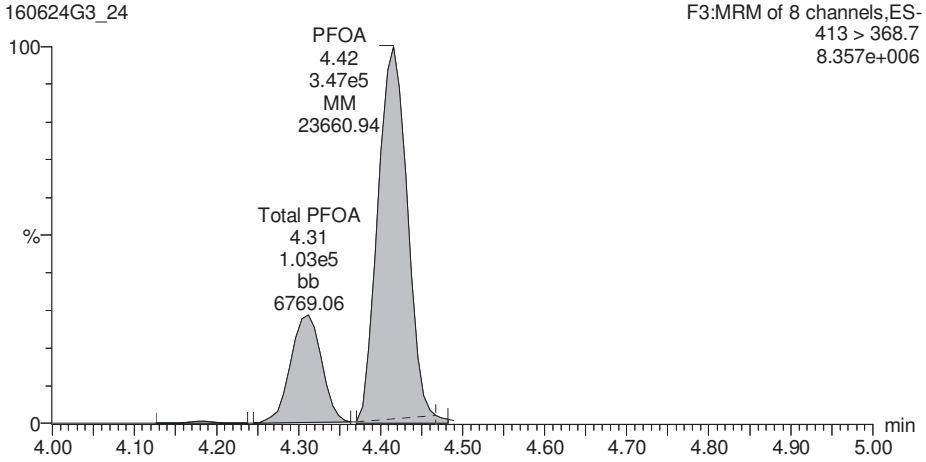
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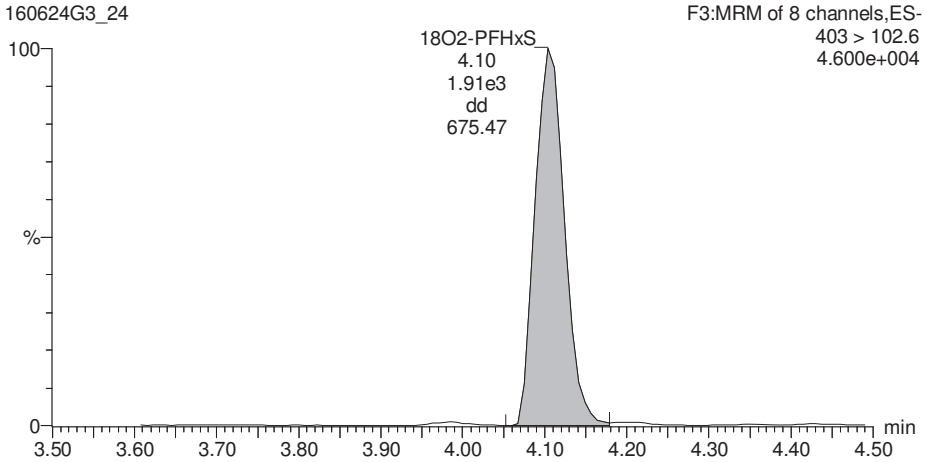
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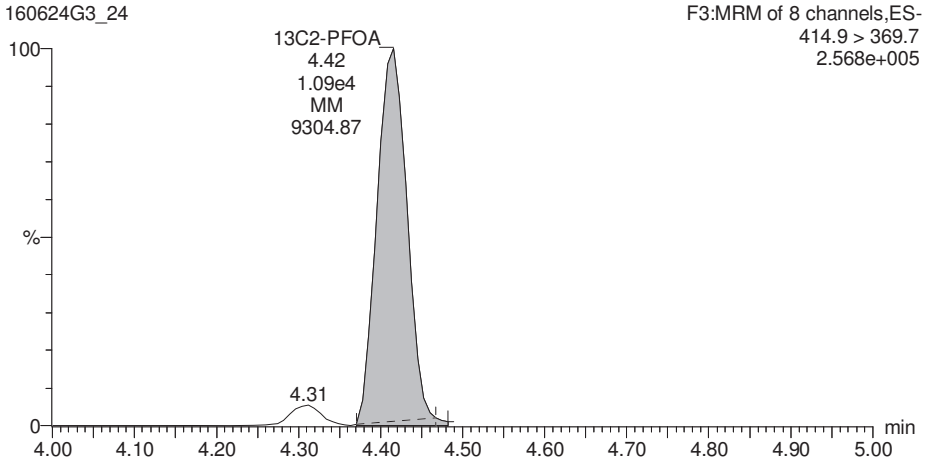
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18O2-PFHxS



13C2-PFOA



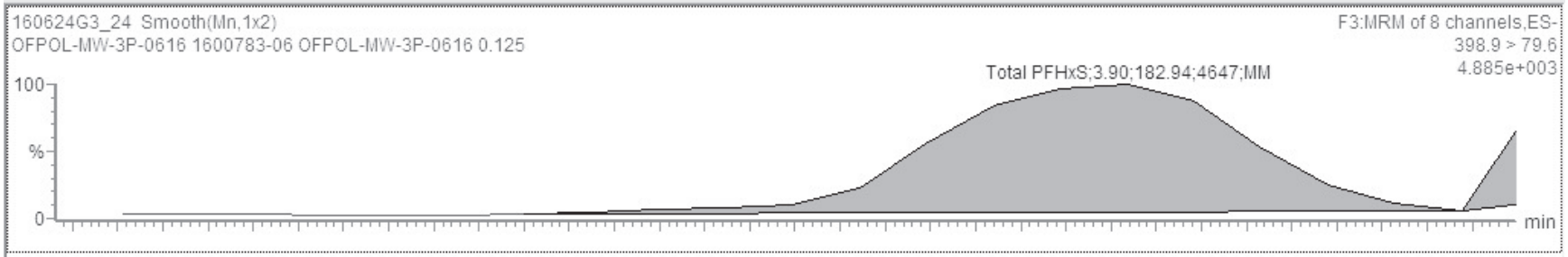
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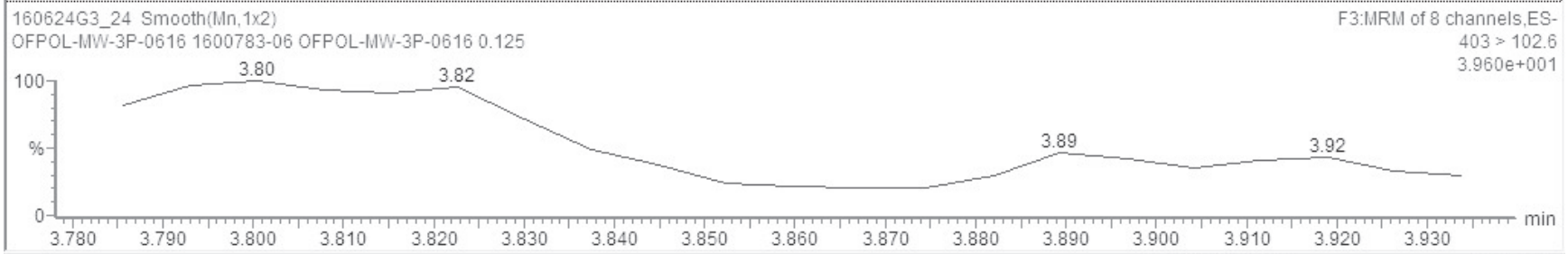
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160624G3_24 - 1600783-06 OFPOL-MW-3P-0616 0.125 - OFPOL-MW-3P-0616

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8	13C4-PFHpA	96.079604	0.0539	86.6		1.406e4	0.923	3.99	8	13			0.904	25-Jun-16	05:28:38		1600783-06.
9	18O2-PFHxS	99.446204	0.369	89.6		1.910e3	0.471	4.10	9	14			0.929	25-Jun-16	05:28:38		1600783-06.
10	13C2-PFOA	111.06319	0.0303	100.1		1.053e4	1.088	4.42	10	15			1.000	25-Jun-16	05:28:38		1600783-06.
11	13C8-PFOS	92.698762	0.174	83.6		2.620e3	1.142	4.83	11	16			0.999	25-Jun-16	05:28:38		1600783-06.
12	13C5-PFNA	87.304781	0.0985	78.7		1.284e4	1.008	4.78	12	17			1.000	25-Jun-16	05:28:38		1600783-06.
13	13C5-PFHxA	110.94346	0.0391	100.0		1.759e4	1.000	3.47	13	13			0.000	25-Jun-16	05:28:38		1600783-06.
14	13C3-PFHxS	110.94346	0.225	100.0		4.522e3	1.000	4.10	14	14			0.000	25-Jun-16	05:28:38		1600783-06.
15	13C8-PFOA	110.94346	0.0295	100.0		9.673e3	1.000	4.42	15	15			0.000	25-Jun-16	05:28:38		1600783-06.
16	13C4-PFOS	110.94346	0.434	100.0		2.745e3	1.000	4.83	16	16			0.000	25-Jun-16	05:28:38		1600783-06.
17	13C9-PFNA	110.94346	0.159	100.0		1.618e4	1.000	4.78	17	17			0.000	25-Jun-16	05:28:38		1600783-06.
18	Total PFBS	397.03256							18	7				25-Jun-16	05:28:38		1600783-06.
19	Total PFHxS	7746.2211							19	9				25-Jun-16	05:28:38		1600783-06.
20	Total PFOA	6214.9131							20	10				25-Jun-16	05:28:38		1600783-06.





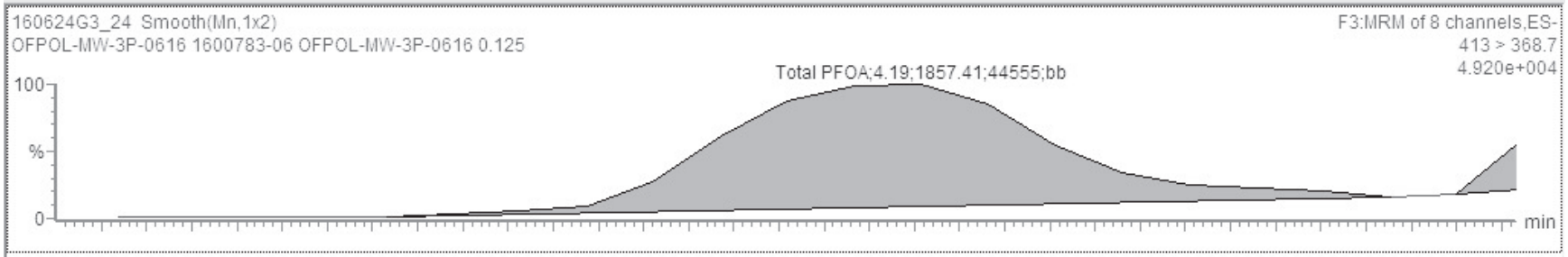
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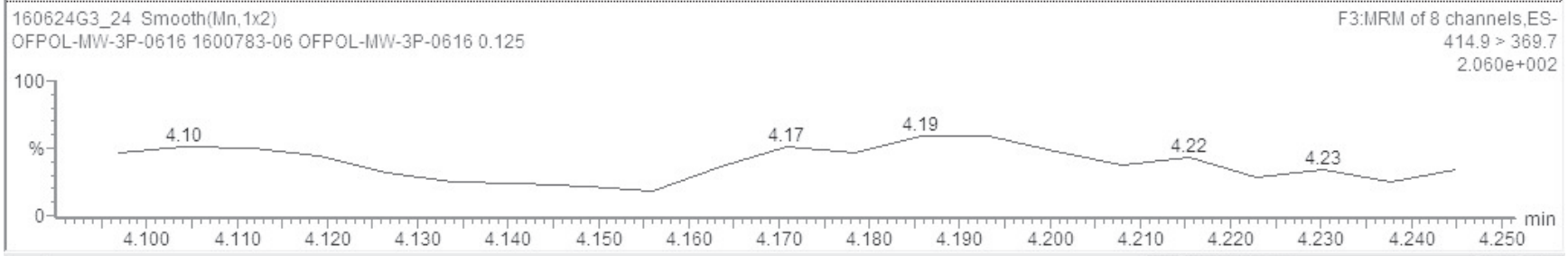
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160624G3_24 - 1600783-06 OFPOL-MW-3P-0616 0.125 - OFPOL-MW-3P-0616

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8	13C4-PFHpA	96.079604	0.0539	86.6		1.406e4	0.923	3.99	8	13			0.904	25-Jun-16	05:28:38		1600783-06.
9	18O2-PFHxS	99.446204	0.369	89.6		1.910e3	0.471	4.10	9	14			0.929	25-Jun-16	05:28:38		1600783-06.
10	13C2-PFOA	114.64187	0.0303	103.3		1.087e4	1.088	4.42	10	15			1.000	25-Jun-16	05:28:38		1600783-06.
11	13C8-PFOS	92.698762	0.174	83.6		2.620e3	1.142	4.83	11	16			0.999	25-Jun-16	05:28:38		1600783-06.
12	13C5-PFNA	87.304781	0.0985	78.7		1.284e4	1.008	4.78	12	17			1.000	25-Jun-16	05:28:38		1600783-06.
13	13C5-PFHxA	110.94346	0.0391	100.0		1.759e4	1.000	3.47	13	13			0.000	25-Jun-16	05:28:38		1600783-06.
14	13C3-PFHxS	110.94346	0.225	100.0		4.522e3	1.000	4.10	14	14			0.000	25-Jun-16	05:28:38		1600783-06.
15	13C8-PFOA	110.94346	0.0295	100.0		9.673e3	1.000	4.42	15	15			0.000	25-Jun-16	05:28:38		1600783-06.
16	13C4-PFOS	110.94346	0.434	100.0		2.745e3	1.000	4.83	16	16			0.000	25-Jun-16	05:28:38		1600783-06.
17	13C9-PFNA	110.94346	0.159	100.0		1.618e4	1.000	4.78	17	17			0.000	25-Jun-16	05:28:38		1600783-06.
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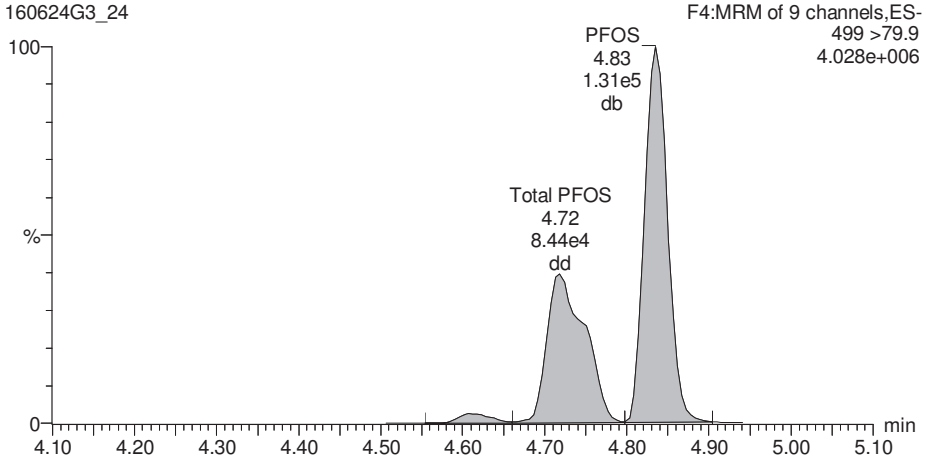
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Vista Analytical Laboratory Q1

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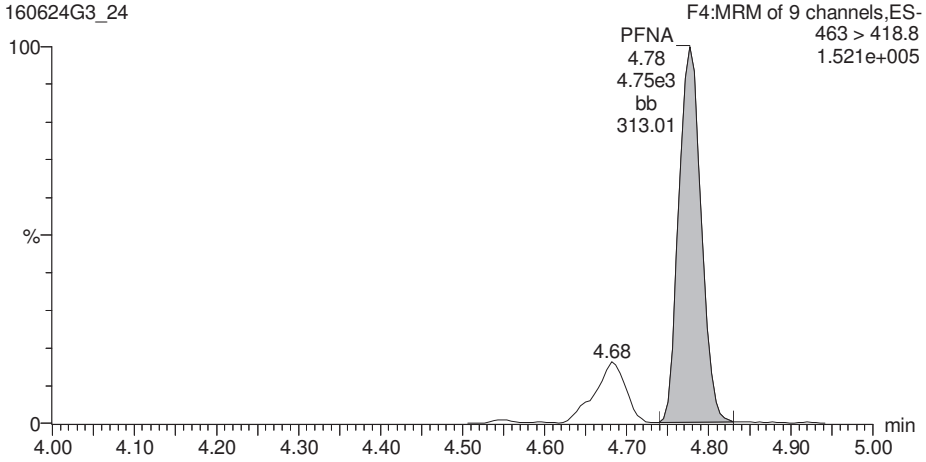
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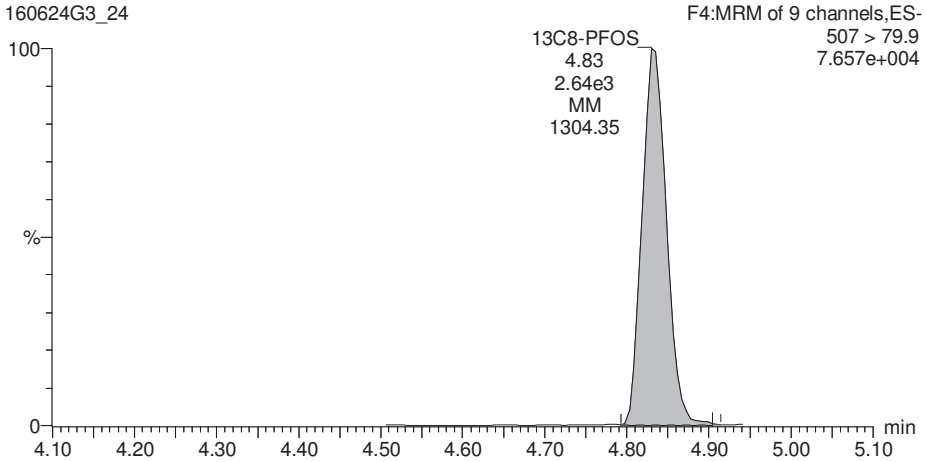
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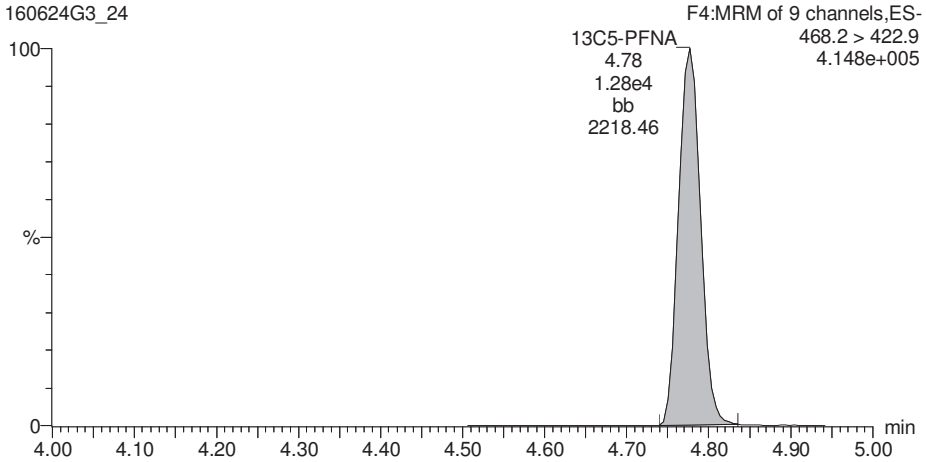
PFNA



13C8-PFOS



13C5-PFNA



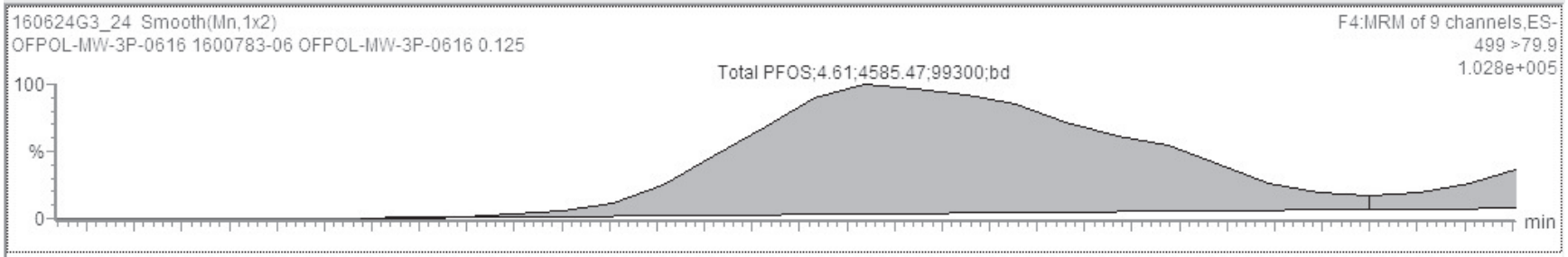
Reviewed: WJL 6/30/16 BR 6/30/16

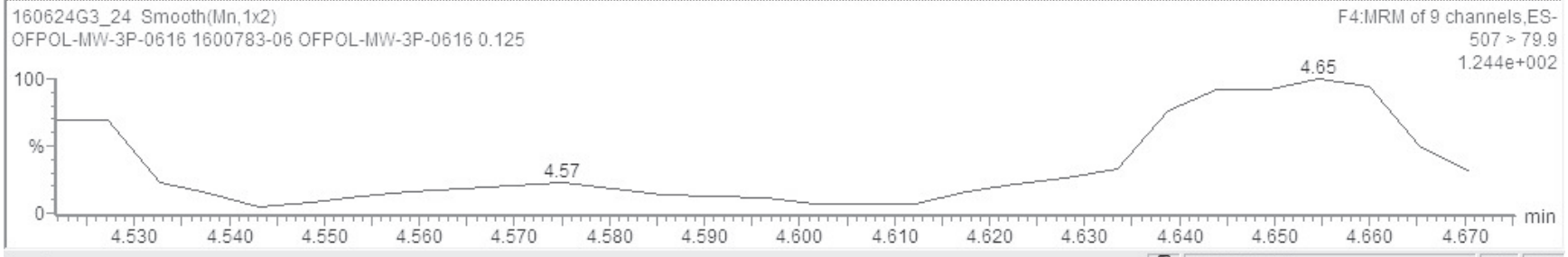
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160624G3_24 - 1600783-06 OFPOL-MW-3P-0616 0.125 - OFPOL-MW-3P-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	115.66647	0.114	104.3		4.331e3	0.236	3.13	7	13			0.708	25-Jun-16	05:28:38		1600783-06.
8	13C4-PFHpA	96.079604	0.0539	86.6		1.406e4	0.923	3.99	8	13			0.904	25-Jun-16	05:28:38		1600783-06.
9	18O2-PFHxS	99.446204	0.369	89.6		1.910e3	0.471	4.10	9	14			0.929	25-Jun-16	05:28:38		1600783-06.
10	13C2-PFOA	114.64187	0.0303	103.3		1.087e4	1.088	4.42	10	15			1.000	25-Jun-16	05:28:38		1600783-06.
11	13C8-PFOS	93.313651	0.174	84.1		2.637e3	1.142	4.83	11	16			0.999	25-Jun-16	05:28:38		1600783-06.
12	13C5-PFNA	87.304781	0.0985	78.7		1.284e4	1.008	4.78	12	17			1.000	25-Jun-16	05:28:38		1600783-06.
13	13C5-PFHxA	110.94346	0.0391	100.0		1.759e4	1.000	3.47	13	13			0.000	25-Jun-16	05:28:38		1600783-06.
14	13C3-PFHxS	110.94346	0.225	100.0		4.522e3	1.000	4.10	14	14			0.000	25-Jun-16	05:28:38		1600783-06.
15	13C8-PFOA	110.94346	0.0295	100.0		9.673e3	1.000	4.42	15	15			0.000	25-Jun-16	05:28:38		1600783-06.
16	13C4-PFOS	110.94346	0.434	100.0		2.745e3	1.000	4.83	16	16			0.000	25-Jun-16	05:28:38		1600783-06.
17	13C9-PFNA	110.94346	0.159	100.0		1.618e4	1.000	4.78	17	17			0.000	25-Jun-16	05:28:38		1600783-06.
18	Total PFBS	397.03256							18	7				25-Jun-16	05:28:38		1600783-06.
19	Total PFHxS	7746.2211							19	9				25-Jun-16	05:28:38		1600783-06.
20	Total PFOA	6187.0084							20	10				25-Jun-16	05:28:38		1600783-06.





Ready 160624G3_24 CAP NUM

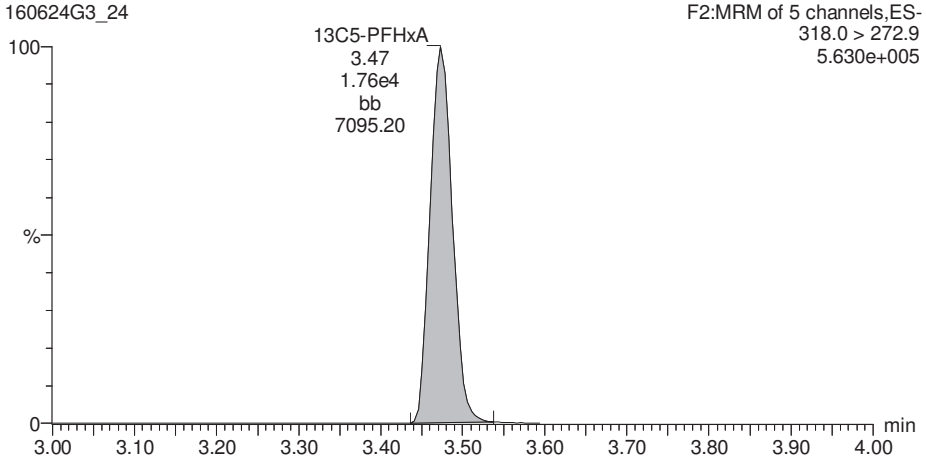
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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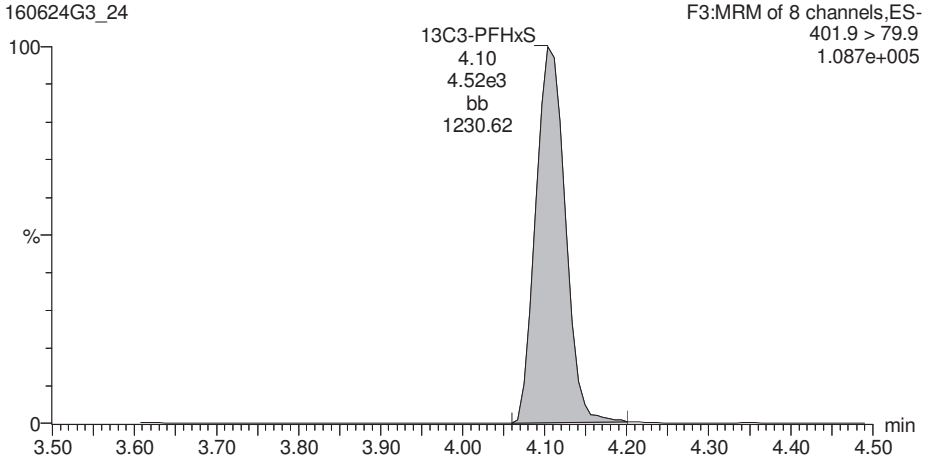
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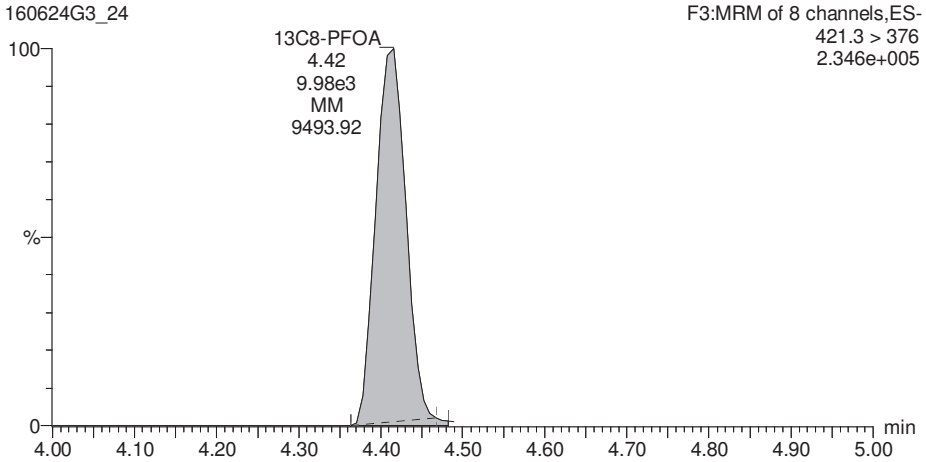
13C5-PFHxA



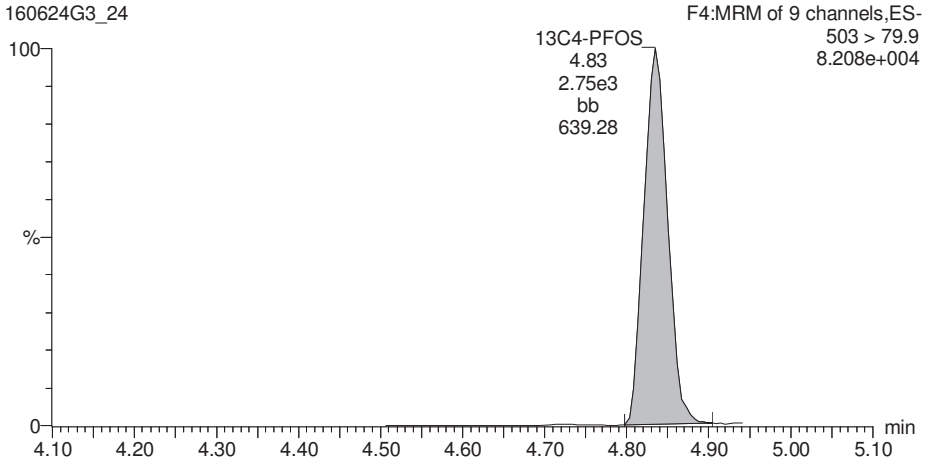
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/30/16

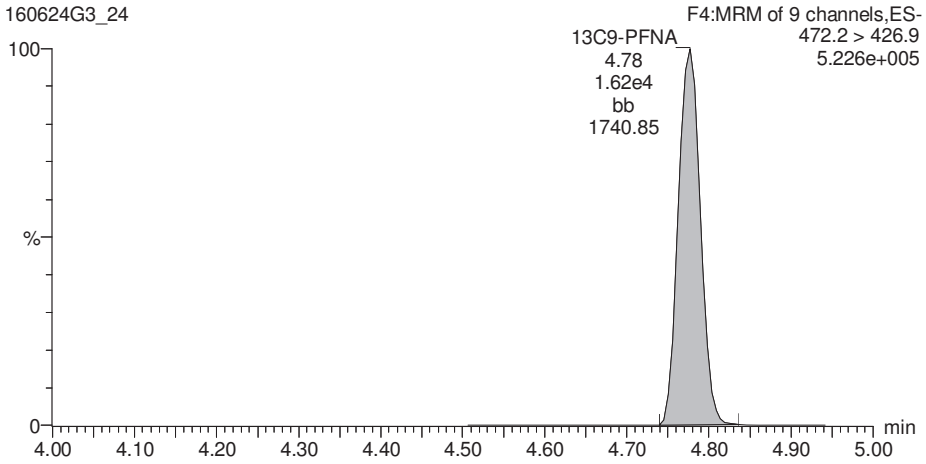
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_62.qld

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Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_62.wiff, Date: 29-Jun-2016, Time: 04:21:35, ID: 1600783-06@10x, Description: OFPOL-MW-3P-0616

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3	PFHxS	79.91	5.94e3	1.48e2		0.113	4.47	6.92	
2	4	PFOA	368.9	1.70e4	9.62e2		0.113	4.75	4.62	
3	5	PFOS	79.92	7.97e3	1.14e2		0.113	5.13	11.3	
4	9	18O2-PFHxS	102.9	1.48e2	6.16e2	0.307	0.113	4.47	0.0869	78.4
5	10	13C2-PFOA	369.9	9.62e2	1.13e3	1.042	0.113	4.75	0.0908	81.8
6	11	13C8-PFOS	79.93	1.14e2	1.33e2	1.026	0.113	5.13	0.0928	83.7
7	14	13C3-PFHxS	80.0	6.16e2	6.16e2	1.000	0.113	4.47	0.111	100.0
8	15	13C8-PFOA	375.9	1.13e3	1.13e3	1.000	0.113	4.74	0.111	100.0
9	16	13C4-PFOS	79.94	1.33e2	1.33e2	1.000	0.113	5.13	0.111	100.0
10	19	Total PFHxS	79.91		1.48e2		0.113		8.38	
11	20	Total PFOA	368.9		9.62e2		0.113		5.62	
12	21	Total PFOS	79.92		1.14e2		0.113		18.6	

Target = ug/L

Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_62.qld

Last Altered: Thursday, June 30, 2016 11:47:06 Pacific Daylight Time
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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_62.wiff, Date: 29-Jun-2016, Time: 04:21:35, ID: 1600783-06@10x, Description: OFPOL-MW-3P-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	4.90e2	7.67e2	0.350
2	18	Total PFBS	79.9	3.35	9.44e0	7.67e2	0.00674

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	5.94e3	1.48e2	6.92
2	19	Total PFHxS	79.91	4.38	1.23e3	1.48e2	1.44
3	19	Total PFHxS	79.91	4.26	2.23e1	1.48e2	0.0259

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	368.9	4.53	4.41e1	9.62e2	0.0120
2	4	PFOA	368.9	4.75	1.70e4	9.62e2	4.62
3	20	Total PFOA	368.9	4.65	3.64e3	9.62e2	0.991

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	7.97e3	1.14e2	11.3
2	21	Total PFOS	79.92	5.02	4.72e3	1.14e2	6.71
3	21	Total PFOS	79.92	4.93	3.91e2	1.14e2	0.556

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q2

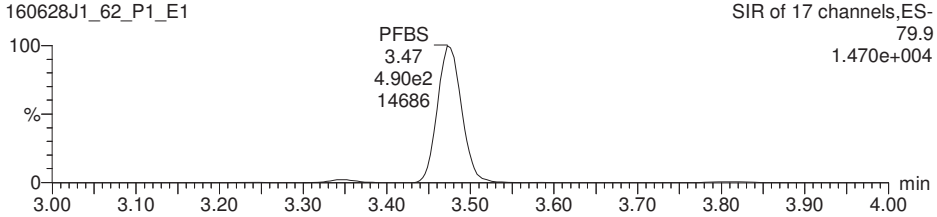
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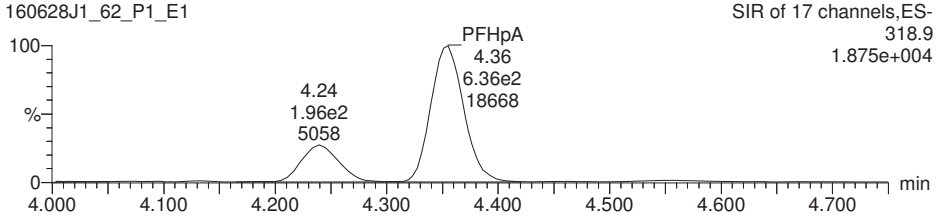
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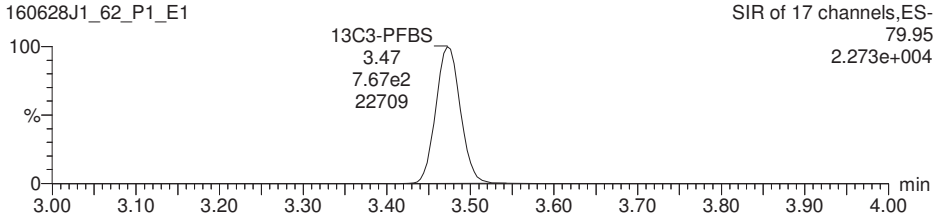
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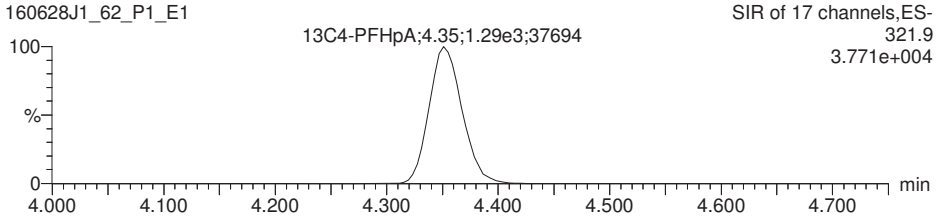
PFHpA



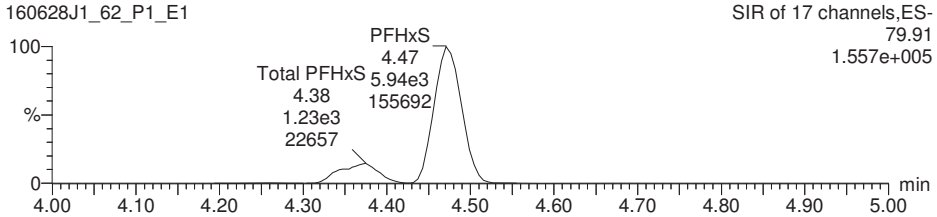
13C3-PFBS



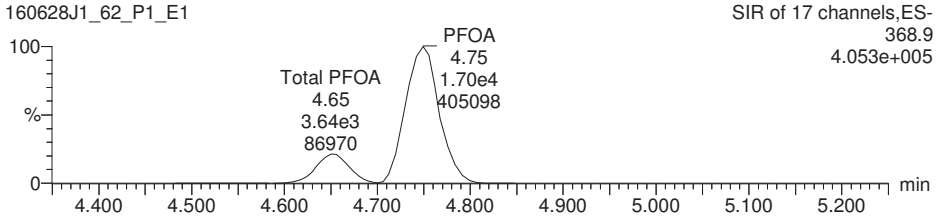
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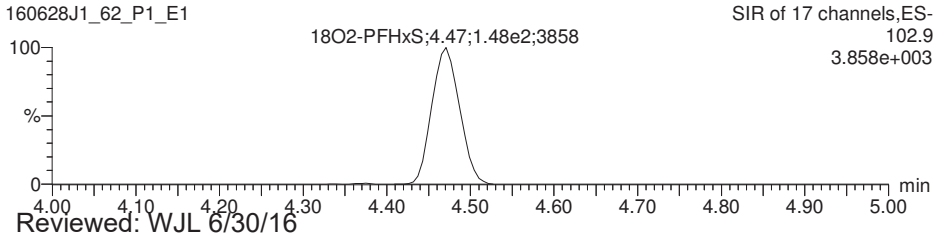
PFHxS



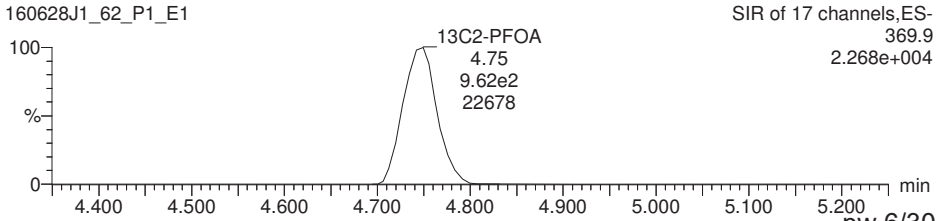
PFOA



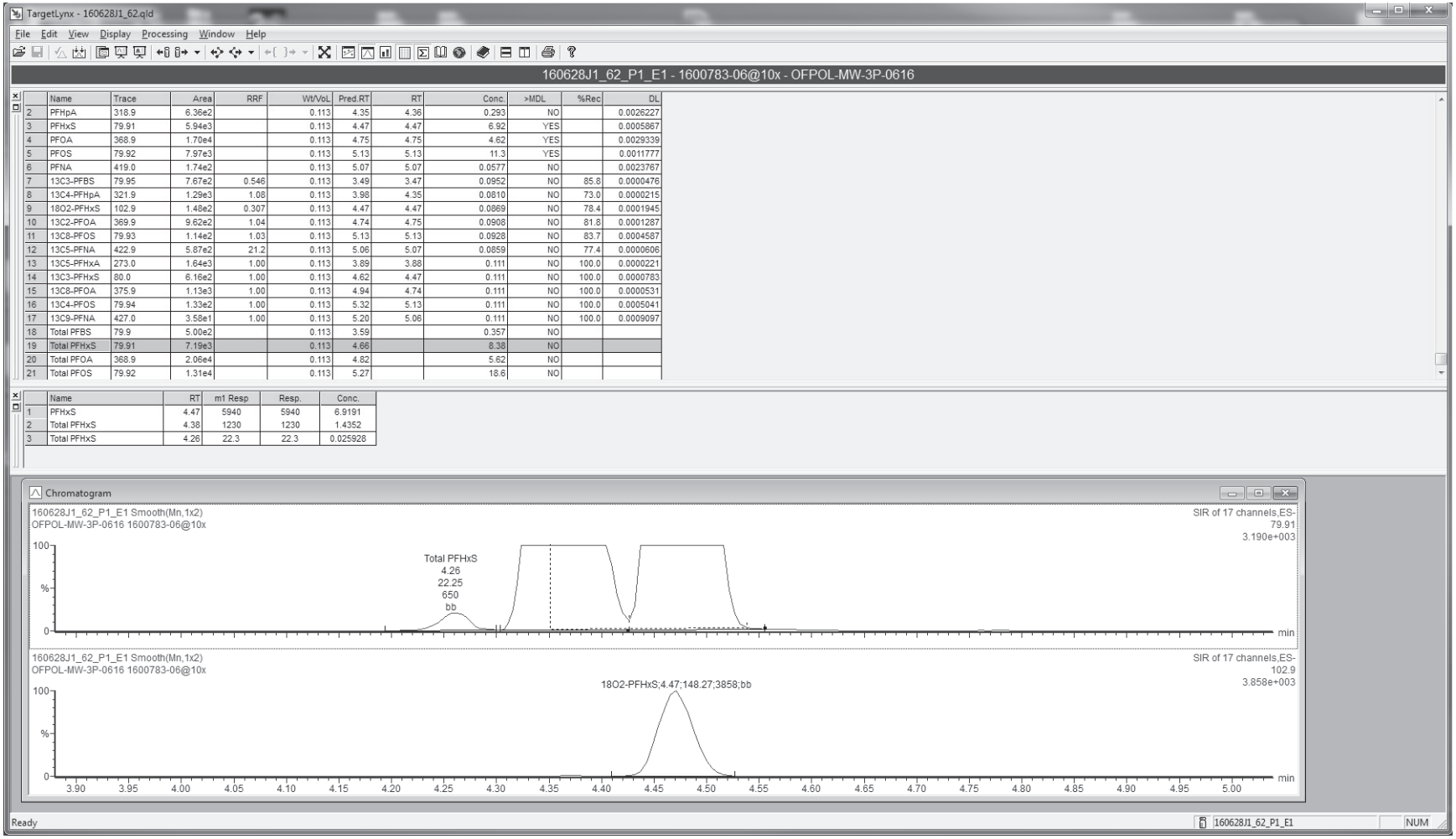
18O2-PFHxS



13C2-PFOA

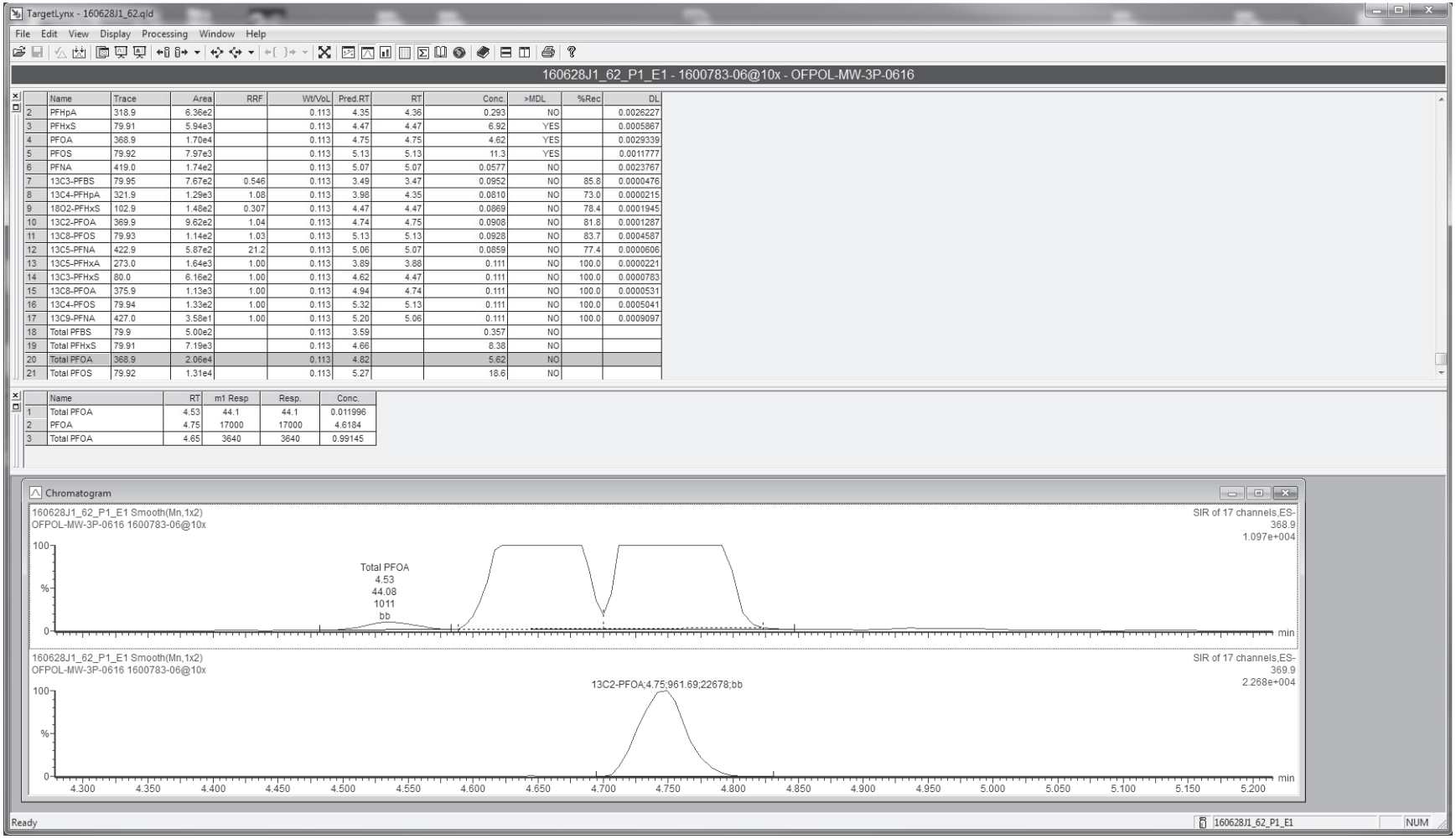


Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.113	4.35	4.36	0.293	NO		0.0026227
3	PFHxS	79.91	5.94e3		0.113	4.47	4.47	6.92	YES		0.0005867
4	PFOA	368.9	1.70e4		0.113	4.75	4.75	4.62	YES		0.0029339
5	PFOS	79.92	7.97e3		0.113	5.13	5.13	11.3	YES		0.0011777
6	PFNA	419.0	1.74e2		0.113	5.07	5.07	0.0577	NO		0.0023767
7	13C3-PFBS	79.95	7.67e2	0.546	0.113	3.49	3.47	0.0952	NO	85.8	0.0000476
8	13C4-PFHpA	321.9	1.29e3	1.08	0.113	3.98	4.35	0.0810	NO	73.0	0.0000215
9	18O2-PFHxS	102.9	1.48e2	0.307	0.113	4.47	4.47	0.0869	NO	78.4	0.0001945
10	13C2-PFOA	369.9	9.62e2	1.04	0.113	4.74	4.75	0.0908	NO	81.8	0.0001287
11	13C8-PFOS	79.93	1.14e2	1.03	0.113	5.13	5.13	0.0928	NO	83.7	0.0004587
12	13C5-PFNA	422.9	5.87e2	21.2	0.113	5.06	5.07	0.0859	NO	77.4	0.0000606
13	13C5-PFHxA	273.0	1.64e3	1.00	0.113	3.89	3.88	0.111	NO	100.0	0.0000221
14	13C3-PFHxS	80.0	6.16e2	1.00	0.113	4.62	4.47	0.111	NO	100.0	0.0000783
15	13C8-PFOA	375.9	1.13e3	1.00	0.113	4.94	4.74	0.111	NO	100.0	0.0000531
16	13C4-PFOS	79.94	1.33e2	1.00	0.113	5.32	5.13	0.111	NO	100.0	0.0005041
17	13C9-PFNA	427.0	3.58e1	1.00	0.113	5.20	5.06	0.111	NO	100.0	0.0009097
18	Total PFBS	79.9	5.00e2		0.113	3.59		0.357	NO		
19	Total PFHxS	79.91	7.19e3		0.113	4.66		8.38	NO		
20	Total PFOA	368.9	2.06e4		0.113	4.82		5.62	NO		
21	Total PFOS	79.92	1.31e4		0.113	5.27		18.6	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	5940	5940	6.9191
2	Total PFHxS	4.38	1230	1230	1.4352
3	Total PFHxS	4.26	22.3	22.3	0.025928



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.113	4.35	4.36	0.293	NO		0.0026227
3	PFHxS	79.91	5.94e3		0.113	4.47	4.47	6.92	YES		0.0005867
4	PFOA	368.9	1.70e4		0.113	4.75	4.75	4.62	YES		0.0029339
5	PFOS	79.92	7.97e3		0.113	5.13	5.13	11.3	YES		0.0011777
6	PFNA	419.0	1.74e2		0.113	5.07	5.07	0.0577	NO		0.0023767
7	13C3-PFBS	79.95	7.67e2	0.546	0.113	3.49	3.47	0.0952	NO	85.8	0.0000476
8	13C4-PFHpA	321.9	1.29e3	1.08	0.113	3.98	4.35	0.0810	NO	73.0	0.0000215
9	18O2-PFHxS	102.9	1.48e2	0.307	0.113	4.47	4.47	0.0869	NO	78.4	0.0001945
10	13C2-PFOA	369.9	9.62e2	1.04	0.113	4.74	4.75	0.0908	NO	81.8	0.0001287
11	13C8-PFOS	79.93	1.14e2	1.03	0.113	5.13	5.13	0.0928	NO	83.7	0.0004587
12	13C5-PFNA	422.9	5.87e2	21.2	0.113	5.06	5.07	0.0859	NO	77.4	0.0000606
13	13C5-PFHxA	273.0	1.64e3	1.00	0.113	3.89	3.88	0.111	NO	100.0	0.0000221
14	13C3-PFHxS	80.0	6.16e2	1.00	0.113	4.62	4.47	0.111	NO	100.0	0.0000783
15	13C8-PFOA	375.9	1.13e3	1.00	0.113	4.94	4.74	0.111	NO	100.0	0.0000531
16	13C4-PFOS	79.94	1.33e2	1.00	0.113	5.32	5.13	0.111	NO	100.0	0.0005041
17	13C9-PFNA	427.0	3.58e1	1.00	0.113	5.20	5.06	0.111	NO	100.0	0.0009097
18	Total PFBS	79.9	5.00e2		0.113	3.59		0.357	NO		
19	Total PFHxS	79.91	7.19e3		0.113	4.66		8.38	NO		
20	Total PFOA	368.9	2.06e4		0.113	4.82		5.62	NO		
21	Total PFOS	79.92	1.31e4		0.113	5.27		18.6	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	Total PFOA	4.53	44.1	44.1	0.011996
2	PFOA	4.75	17000	17000	4.6184
3	Total PFOA	4.65	3640	3640	0.99145

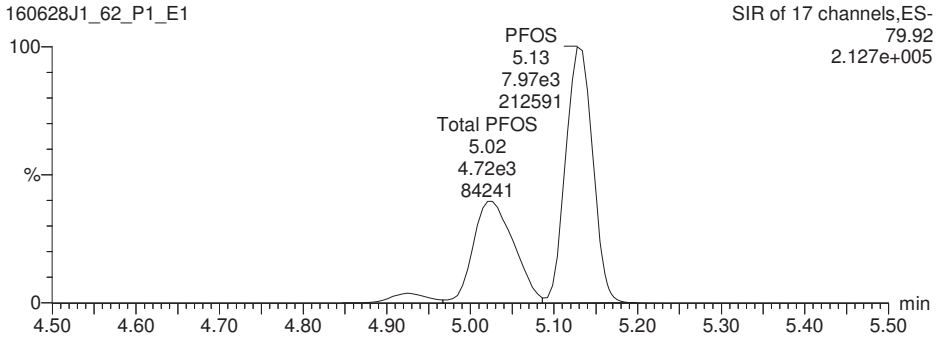
Reviewed: WJL 6/30/16 pw 6/30/16

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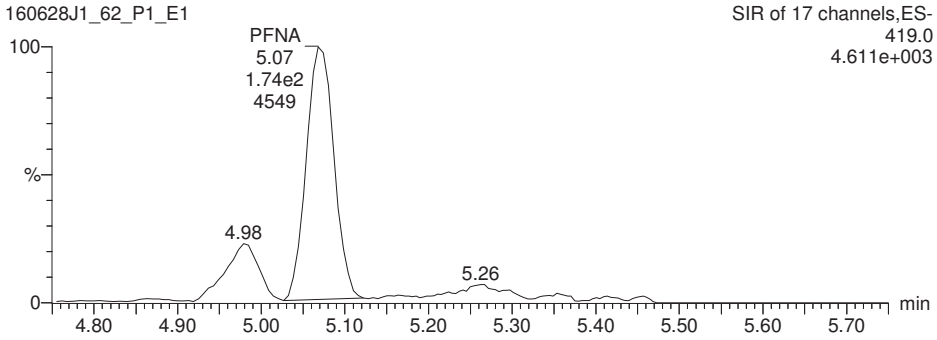
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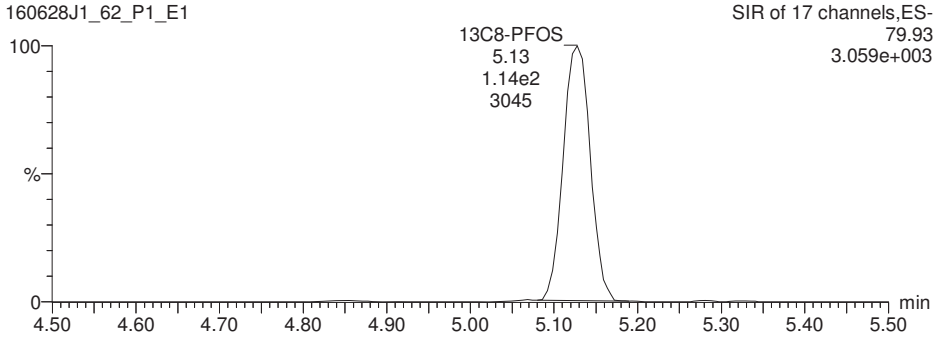
PFOS



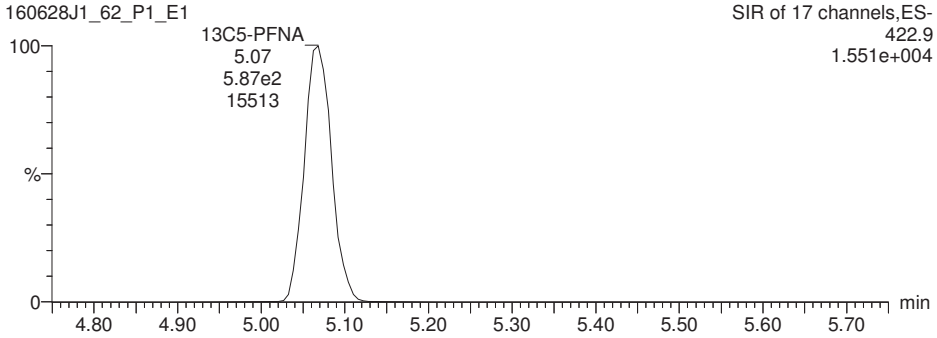
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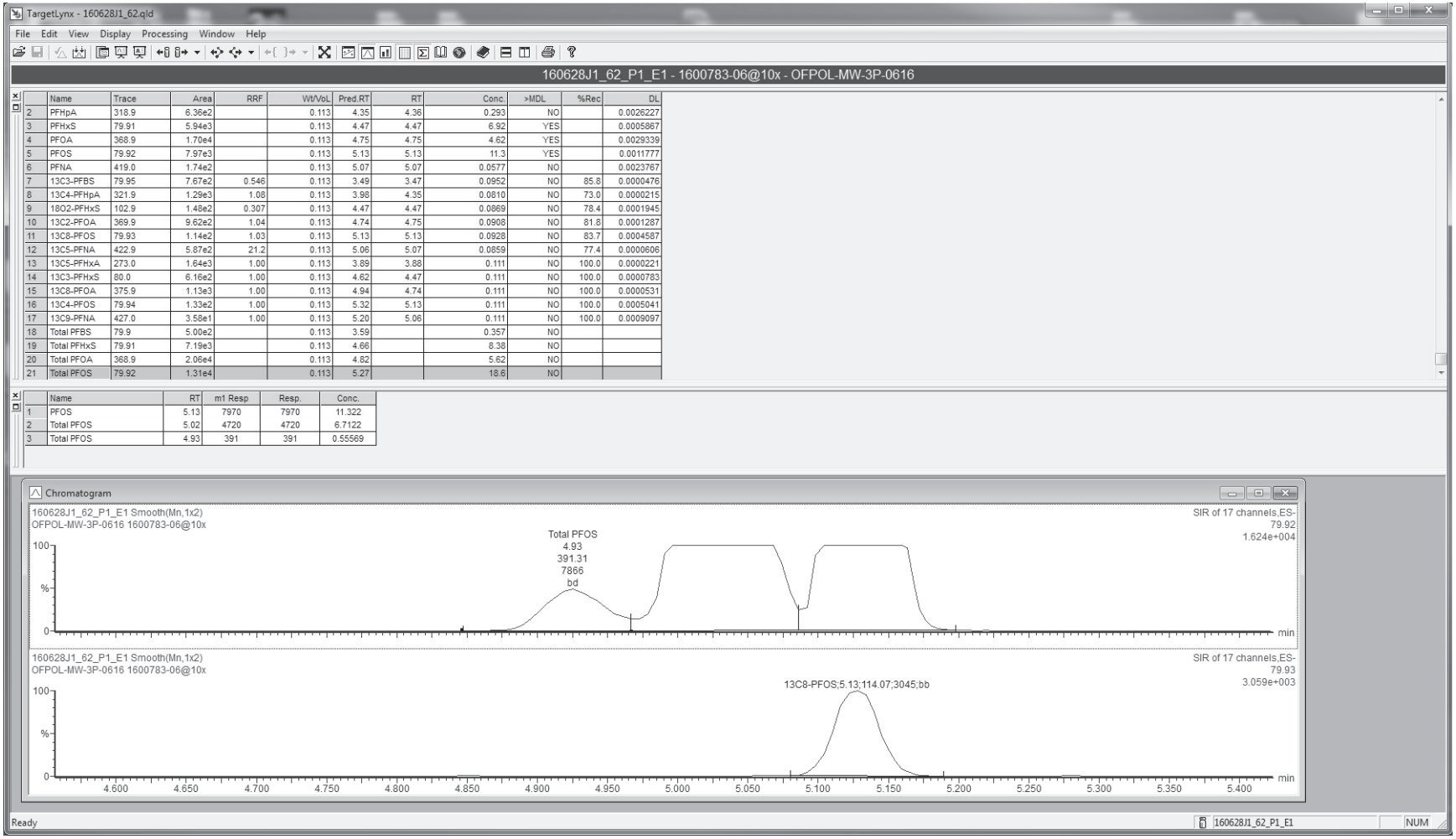
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
2	PFHpA	318.9	6.36e2		0.113	4.35	4.36	0.293	NO		0.0026227
3	PFHxS	79.91	5.94e3		0.113	4.47	4.47	6.92	YES		0.0005867
4	PFOA	368.9	1.70e4		0.113	4.75	4.75	4.62	YES		0.0029339
5	PFOS	79.92	7.97e3		0.113	5.13	5.13	11.3	YES		0.0011777
6	PFNA	419.0	1.74e2		0.113	5.07	5.07	0.0577	NO		0.0023767
7	13C3-PFBS	79.95	7.67e2	0.546	0.113	3.49	3.47	0.0952	NO	85.8	0.0000476
8	13C4-PFHpA	321.9	1.29e3	1.08	0.113	3.98	4.35	0.0810	NO	73.0	0.0000215
9	18O2-PFHxS	102.9	1.48e2	0.307	0.113	4.47	4.47	0.0869	NO	78.4	0.0001945
10	13C2-PFOA	369.9	9.62e2	1.04	0.113	4.74	4.75	0.0908	NO	81.8	0.0001287
11	13C8-PFOS	79.93	1.14e2	1.03	0.113	5.13	5.13	0.0928	NO	83.7	0.0004587
12	13C5-PFNA	422.9	5.87e2	21.2	0.113	5.06	5.07	0.0859	NO	77.4	0.0000606
13	13C5-PFHxA	273.0	1.64e3	1.00	0.113	3.89	3.88	0.111	NO	100.0	0.0000221
14	13C3-PFHxS	80.0	6.16e2	1.00	0.113	4.62	4.47	0.111	NO	100.0	0.0000783
15	13C8-PFOA	375.9	1.13e3	1.00	0.113	4.94	4.74	0.111	NO	100.0	0.0000531
16	13C4-PFOS	79.94	1.33e2	1.00	0.113	5.32	5.13	0.111	NO	100.0	0.0005041
17	13C9-PFNA	427.0	3.58e1	1.00	0.113	5.20	5.06	0.111	NO	100.0	0.0009097
18	Total PFBS	79.9	5.00e2		0.113	3.59		0.357	NO		
19	Total PFHxS	79.91	7.19e3		0.113	4.66		8.38	NO		
20	Total PFOA	368.9	2.06e4		0.113	4.82		5.62	NO		
21	Total PFOS	79.92	1.31e4		0.113	5.27		18.6	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.13	7970	7970	11.322
2	Total PFOS	5.02	4720	4720	6.7122
3	Total PFOS	4.93	391	391	0.55569

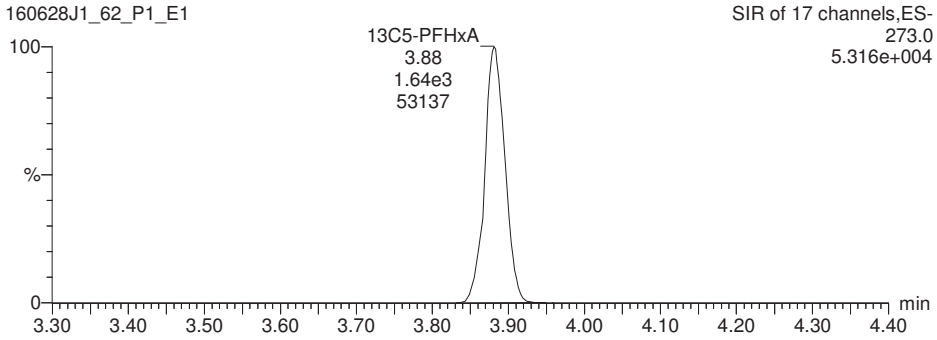
Reviewed: WJL 6/30/16 pw 6/30/16

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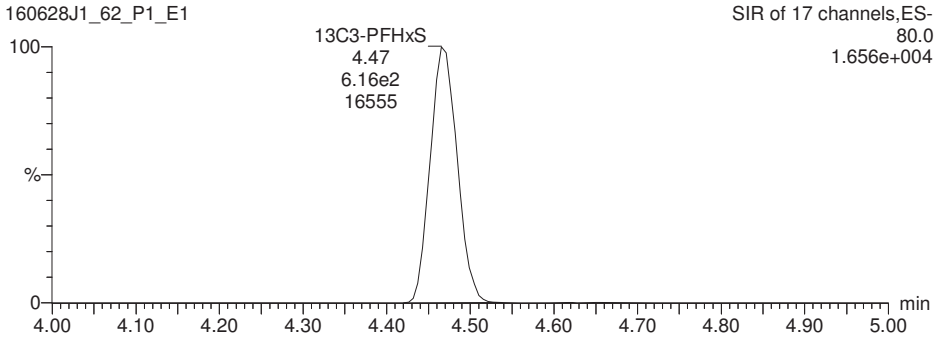
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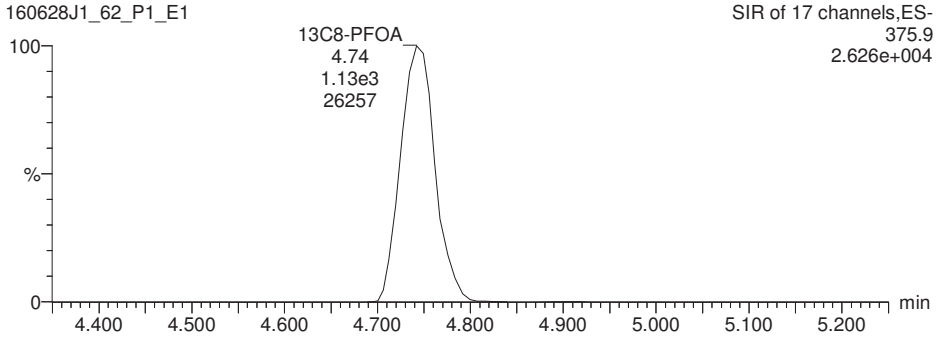
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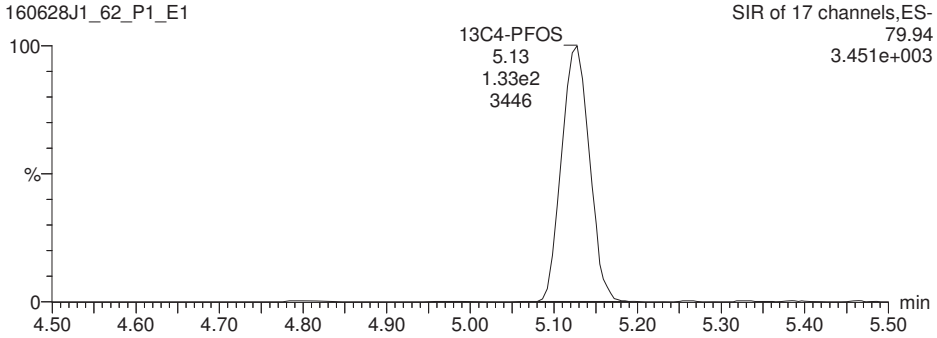
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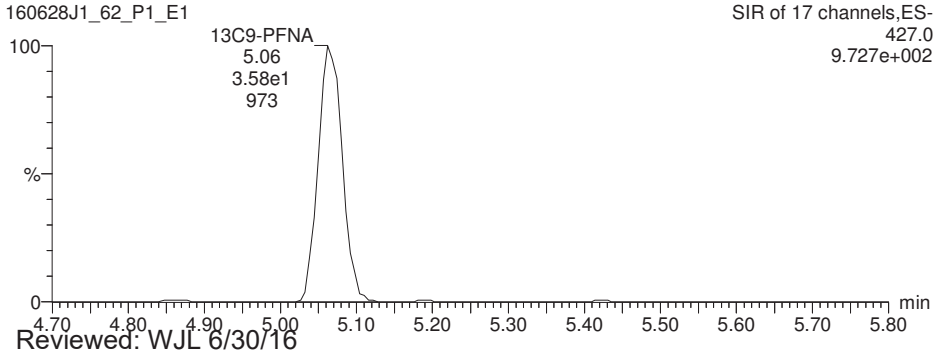
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_25.qld

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Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-07 OFPOL-MW-2-0616 0.125, Description: OFPOL-MW-2-0616, Name: 160624G3_25, Date: 25-Jun-2016, Time: 05:41:19

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	6.904e3	4.301e3		0.121	3.13	199		
2	2	PFHpA	363 > 318.9	3.184e4	1.494e4		0.121	3.99	184		
3	3	PFHxS	398.9 > 79.6	5.541e4	2.347e3		0.121	4.11	2550	E*	
4	4	PFOA	413 > 368.7	9.938e4	1.441e4		0.121	4.42	953		
5	5	PFOS	499 >79.9	1.101e5	2.891e3		0.121	4.83	7210	E*	
6	6	PFNA	463 > 418.8	5.637e3	1.176e4		0.121	4.78	63.5		
7	7	13C3-PFBS	302.0 > 98.8	4.301e3	2.230e4	0.236	0.121	3.13	84.3		81.7
8	8	13C4-PFHpA	367.2 > 321.8	1.494e4	2.230e4	0.923	0.121	3.99	74.9		72.6
9	9	18O2-PFHxS	403 > 102.6	2.347e3	6.315e3	0.471	0.121	4.11	81.4	*	78.9
10	10	13C2-PFOA	414.9 > 369.7	1.441e4	1.629e4	1.088	0.121	4.42	83.9		81.4
11	11	13C8-PFOS	507 > 79.9	2.891e3	3.467e3	1.142	0.121	4.83	75.3	*	73.0
12	12	13C5-PFNA	468.2 > 422.9	1.176e4	1.692e4	1.008	0.121	4.78	71.1		68.9
13	13	13C5-PFHxA	318.0 > 272.9	2.230e4	2.230e4	1.000	0.121	3.47	103		100
14	14	13C3-PFHxS	401.9 > 79.9	6.315e3	6.315e3	1.000	0.121	4.11	103		100
15	15	13C8-PFOA	421.3 > 376	1.629e4	1.629e4	1.000	0.121	4.42	103		100
16	16	13C4-PFOS	503 > 79.9	3.467e3	3.467e3	1.000	0.121	4.83	103		100
17	17	13C9-PFNA	472.2 > 426.9	1.692e4	1.692e4	1.000	0.121	4.78	103		100
18	18	Total PFBS	299 > 79.7		4.301e3		0.121		202		
19	19	Total PFHxS	398.9 > 79.6		2.347e3		0.121		3310		
20	20	Total PFOA	413 > 368.7		1.441e4		0.121		1150		
21	21	Total PFOS	499 > 79.9		2.891e3		0.121		11800		

*SEE 1:10 DILUTION

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_25.qld

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ID: 1600783-07 OFPOL-MW-2-0616 0.125, Description: OFPOL-MW-2-0616, Name: 160624G3_25, Date: 25-Jun-2016, Time: 05:41:19

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	6904.344	4301.229	198.7
2	18	Total PFBS	299 > 79.7	3.02	103.990	4301.229	3.1

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	55414.379	2347.203	2552.7
2	19	Total PFHxS	398.9 > 79.6	4.00	13296.473	2347.203	747.4
3	19	Total PFHxS	398.9 > 79.6	3.90	92.457	2347.203	5.7

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	99383.227	14410.663	952.6
2	20	Total PFOA	413 > 368.7	4.31	20524.732	14410.663	196.6
3	20	Total PFOA	413 > 368.7	4.18	428.993	14410.663	4.1

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	110139.039	2890.557	7208.5
2	21	Total PFOS	499 >79.9	4.72	62308.723	2890.557	4345.8
3	21	Total PFOS	499 >79.9	4.61	2661.178	2890.557	205.1

Reviewed: WJL 6/30/16

BR 6/30/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

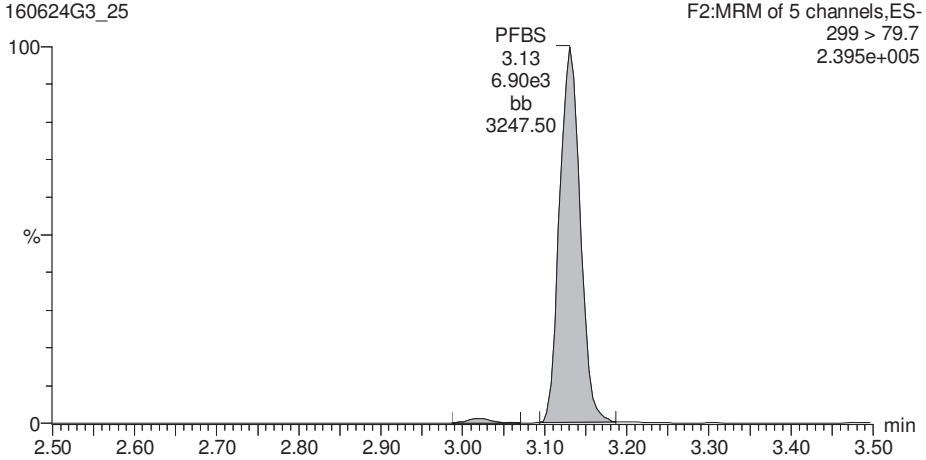
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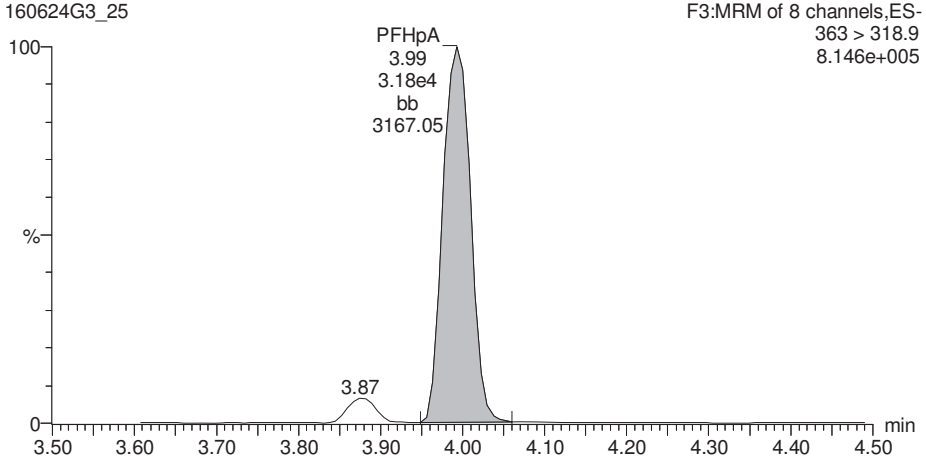
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ID: 1600783-07 OFPOL-MW-2-0616 0.125, Description: OFPOL-MW-2-0616, Name: 160624G3_25, Date: 25-Jun-2016, Time: 05:41:19, Instrument: , Lab: , User:

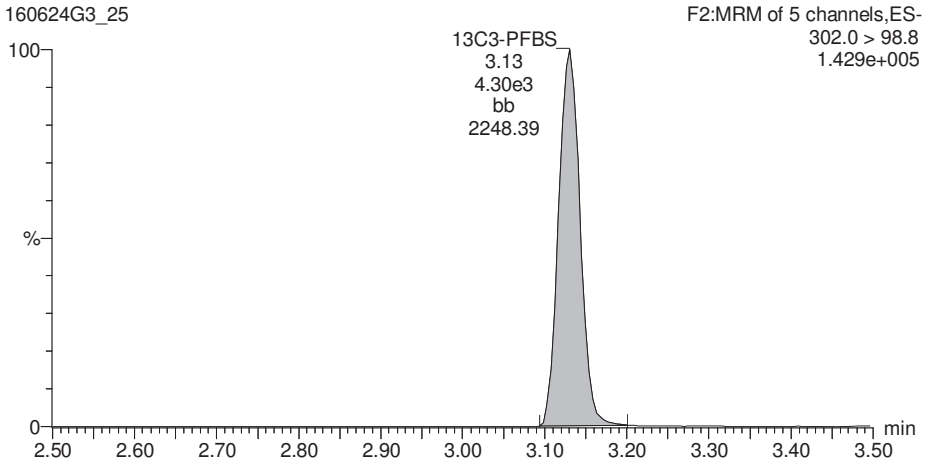
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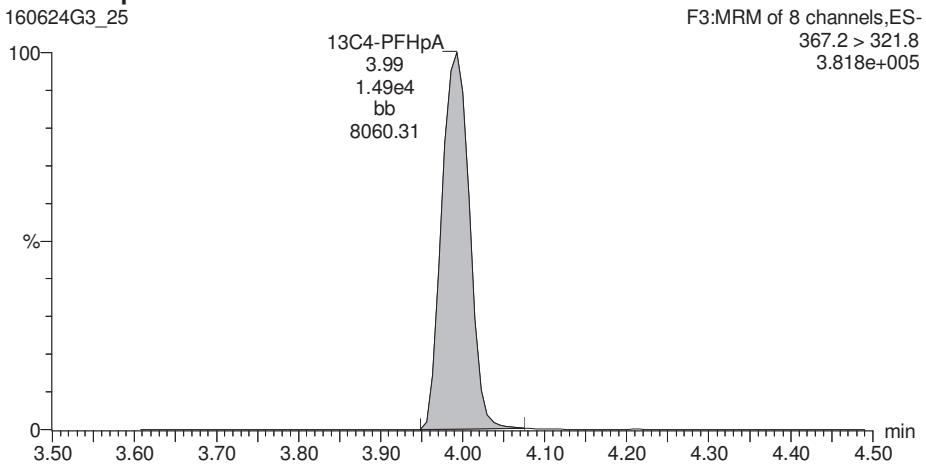
PFHpA



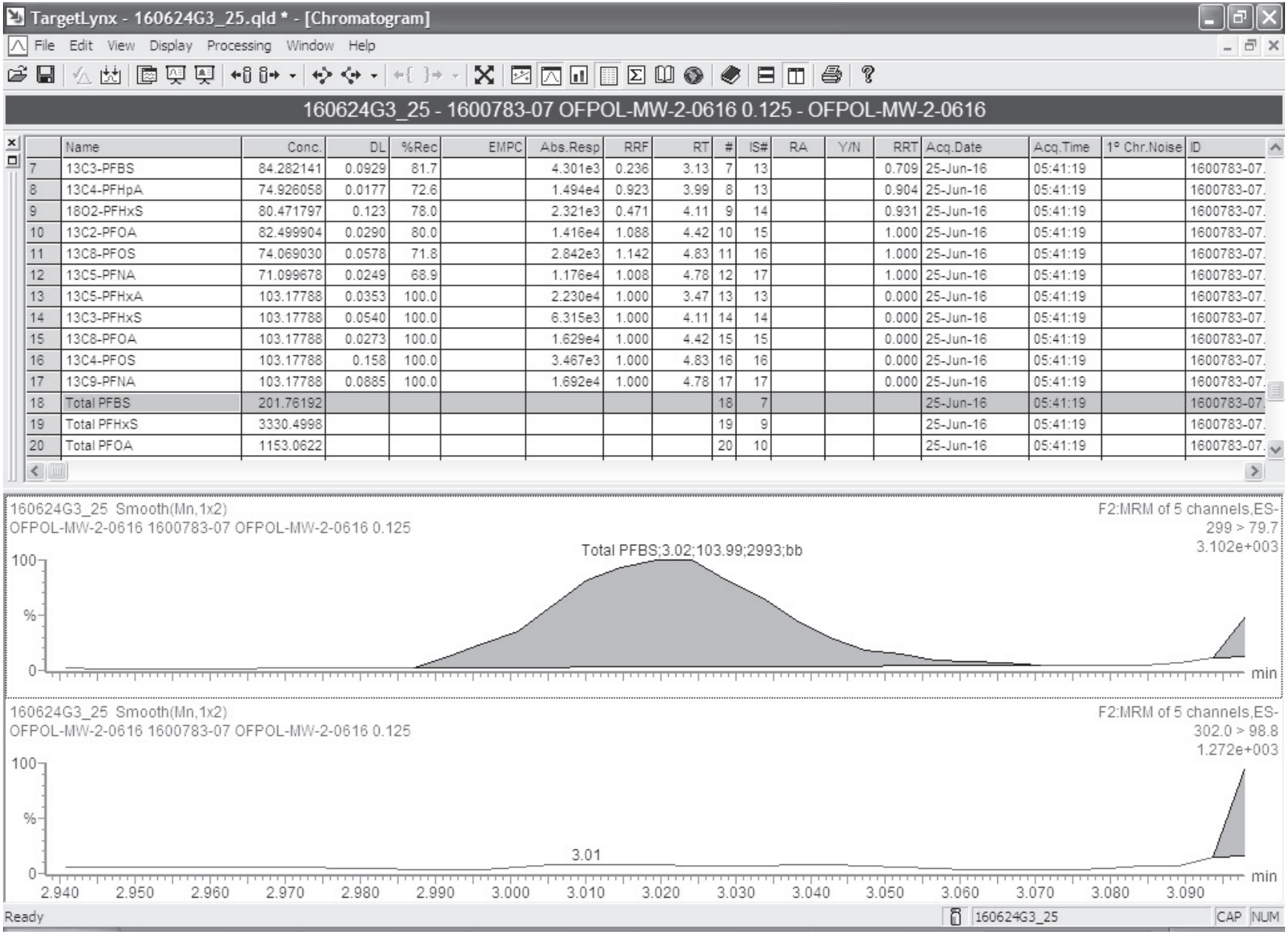
13C3-PFBS



13C4-PFHpA



Reviewed: WJL 6/30/16 BR 6/30/16



	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	84.282141	0.0929	81.7		4.301e3	0.236	3.13	7	13			0.709	25-Jun-16	05:41:19		1600783-07.
8	13C4-PFHpA	74.926058	0.0177	72.6		1.494e4	0.923	3.99	8	13			0.904	25-Jun-16	05:41:19		1600783-07.
9	18O2-PFHxS	80.471797	0.123	78.0		2.321e3	0.471	4.11	9	14			0.931	25-Jun-16	05:41:19		1600783-07.
10	13C2-PFOA	82.499904	0.0290	80.0		1.416e4	1.088	4.42	10	15			1.000	25-Jun-16	05:41:19		1600783-07.
11	13C8-PFOS	74.069030	0.0578	71.8		2.842e3	1.142	4.83	11	16			1.000	25-Jun-16	05:41:19		1600783-07.
12	13C5-PFNA	71.099678	0.0249	68.9		1.176e4	1.008	4.78	12	17			1.000	25-Jun-16	05:41:19		1600783-07.
13	13C5-PFHxA	103.17788	0.0353	100.0		2.230e4	1.000	3.47	13	13			0.000	25-Jun-16	05:41:19		1600783-07.
14	13C3-PFHxS	103.17788	0.0540	100.0		6.315e3	1.000	4.11	14	14			0.000	25-Jun-16	05:41:19		1600783-07.
15	13C8-PFOA	103.17788	0.0273	100.0		1.629e4	1.000	4.42	15	15			0.000	25-Jun-16	05:41:19		1600783-07.
16	13C4-PFOS	103.17788	0.158	100.0		3.467e3	1.000	4.83	16	16			0.000	25-Jun-16	05:41:19		1600783-07.
17	13C9-PFNA	103.17788	0.0885	100.0		1.692e4	1.000	4.78	17	17			0.000	25-Jun-16	05:41:19		1600783-07.
18	Total PFBS	201.76192							18	7				25-Jun-16	05:41:19		1600783-07.
19	Total PFHxS	3330.4998							19	9				25-Jun-16	05:41:19		1600783-07.
20	Total PFOA	1153.0622							20	10				25-Jun-16	05:41:19		1600783-07.

Reviewed: WJL 6/30/16 BR 6/30/16

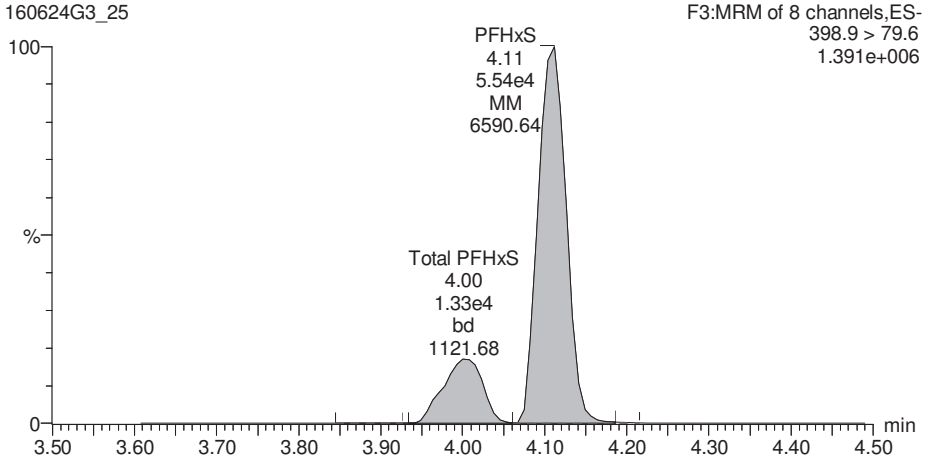
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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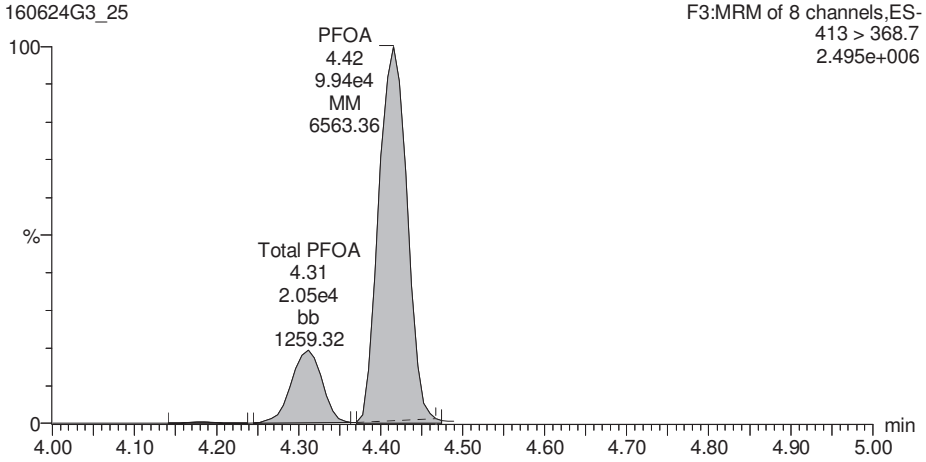
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ID: 1600783-07 OFPOL-MW-2-0616 0.125, Description: OFPOL-MW-2-0616, Name: 160624G3_25, Date: 25-Jun-2016, Time: 05:41:19, Instrument: , Lab: , User:

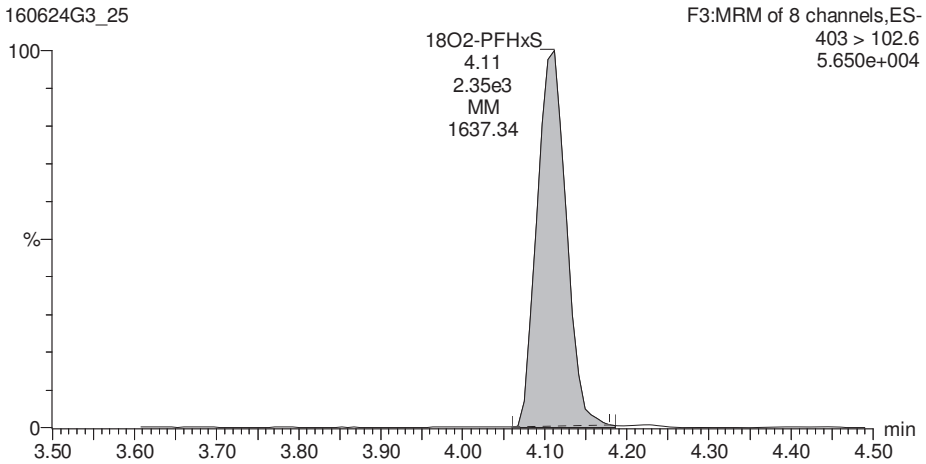
Total PFHxS



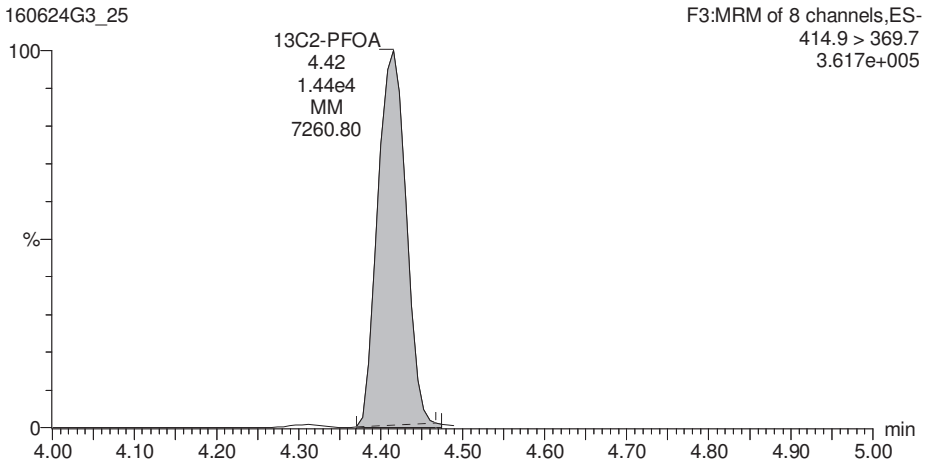
Total PFOA



18O2-PFHxS



13C2-PFOA



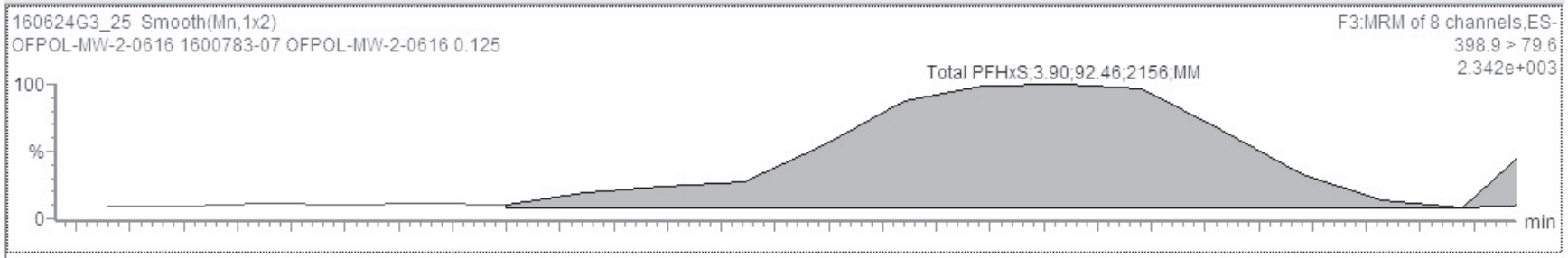
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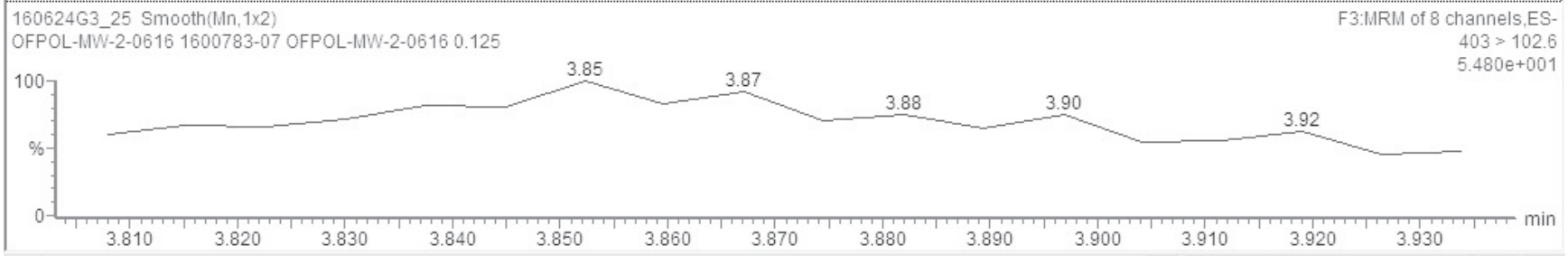
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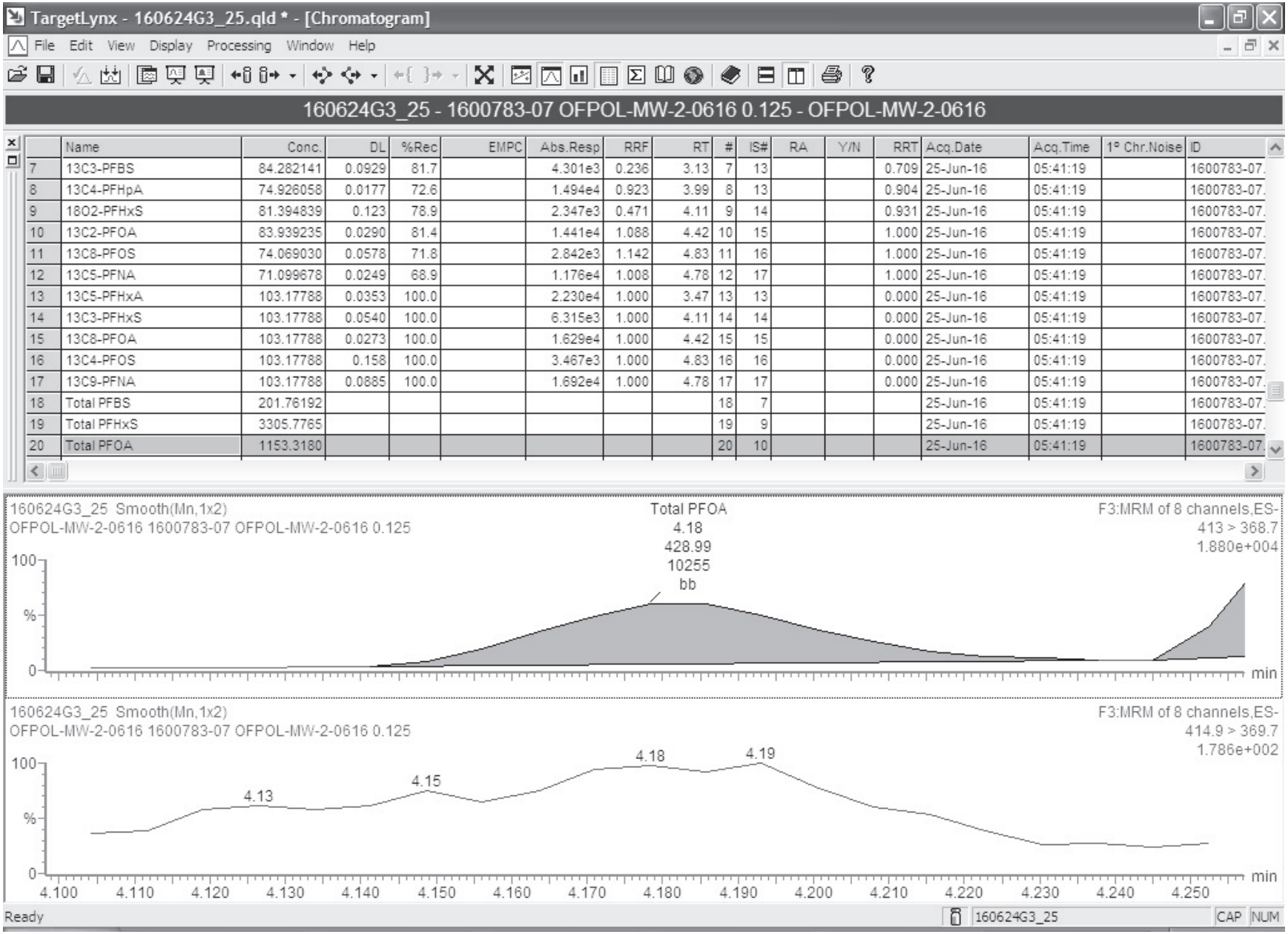
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	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	84.282141	0.0929	81.7		4.301e3	0.236	3.13	7	13			0.709	25-Jun-16	05:41:19		1600783-07.
8	13C4-PFHpA	74.926058	0.0177	72.6		1.494e4	0.923	3.99	8	13			0.904	25-Jun-16	05:41:19		1600783-07.
9	18O2-PFHxS	81.394839	0.123	78.9		2.347e3	0.471	4.11	9	14			0.931	25-Jun-16	05:41:19		1600783-07.
10	13C2-PFOA	82.499904	0.0290	80.0		1.416e4	1.088	4.42	10	15			1.000	25-Jun-16	05:41:19		1600783-07.
11	13C8-PFOS	74.069030	0.0578	71.8		2.842e3	1.142	4.83	11	16			1.000	25-Jun-16	05:41:19		1600783-07.
12	13C5-PFNA	71.099678	0.0249	68.9		1.176e4	1.008	4.78	12	17			1.000	25-Jun-16	05:41:19		1600783-07.
13	13C5-PFHxA	103.17788	0.0353	100.0		2.230e4	1.000	3.47	13	13			0.000	25-Jun-16	05:41:19		1600783-07.
14	13C3-PFHxS	103.17788	0.0540	100.0		6.315e3	1.000	4.11	14	14			0.000	25-Jun-16	05:41:19		1600783-07.
15	13C8-PFOA	103.17788	0.0273	100.0		1.629e4	1.000	4.42	15	15			0.000	25-Jun-16	05:41:19		1600783-07.
16	13C4-PFOS	103.17788	0.158	100.0		3.467e3	1.000	4.83	16	16			0.000	25-Jun-16	05:41:19		1600783-07.
17	13C9-PFNA	103.17788	0.0885	100.0		1.692e4	1.000	4.78	17	17			0.000	25-Jun-16	05:41:19		1600783-07.
18	Total PFBS	201.76192							18	7				25-Jun-16	05:41:19		1600783-07.
19	Total PFHxS	3305.7765							19	9				25-Jun-16	05:41:19		1600783-07.
20	Total PFOA	1153.0622							20	10				25-Jun-16	05:41:19		1600783-07.





Ready 160624G3_25 CAP NUM



	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	84.282141	0.0929	81.7		4.301e3	0.236	3.13	7	13			0.709	25-Jun-16	05:41:19		1600783-07.
8	13C4-PFHpA	74.926058	0.0177	72.6		1.494e4	0.923	3.99	8	13			0.904	25-Jun-16	05:41:19		1600783-07.
9	18O2-PFHxS	81.394839	0.123	78.9		2.347e3	0.471	4.11	9	14			0.931	25-Jun-16	05:41:19		1600783-07.
10	13C2-PFOA	83.939235	0.0290	81.4		1.441e4	1.088	4.42	10	15			1.000	25-Jun-16	05:41:19		1600783-07.
11	13C8-PFOS	74.069030	0.0578	71.8		2.842e3	1.142	4.83	11	16			1.000	25-Jun-16	05:41:19		1600783-07.
12	13C5-PFNA	71.099678	0.0249	68.9		1.176e4	1.008	4.78	12	17			1.000	25-Jun-16	05:41:19		1600783-07.
13	13C5-PFHxA	103.17788	0.0353	100.0		2.230e4	1.000	3.47	13	13			0.000	25-Jun-16	05:41:19		1600783-07.
14	13C3-PFHxS	103.17788	0.0540	100.0		6.315e3	1.000	4.11	14	14			0.000	25-Jun-16	05:41:19		1600783-07.
15	13C8-PFOA	103.17788	0.0273	100.0		1.629e4	1.000	4.42	15	15			0.000	25-Jun-16	05:41:19		1600783-07.
16	13C4-PFOS	103.17788	0.158	100.0		3.467e3	1.000	4.83	16	16			0.000	25-Jun-16	05:41:19		1600783-07.
17	13C9-PFNA	103.17788	0.0885	100.0		1.692e4	1.000	4.78	17	17			0.000	25-Jun-16	05:41:19		1600783-07.
18	Total PFBS	201.76192							18	7				25-Jun-16	05:41:19		1600783-07.
19	Total PFHxS	3305.7765							19	9				25-Jun-16	05:41:19		1600783-07.
20	Total PFOA	1153.3180							20	10				25-Jun-16	05:41:19		1600783-07.

Reviewed: WJL 6/30/16 BR 6/30/16

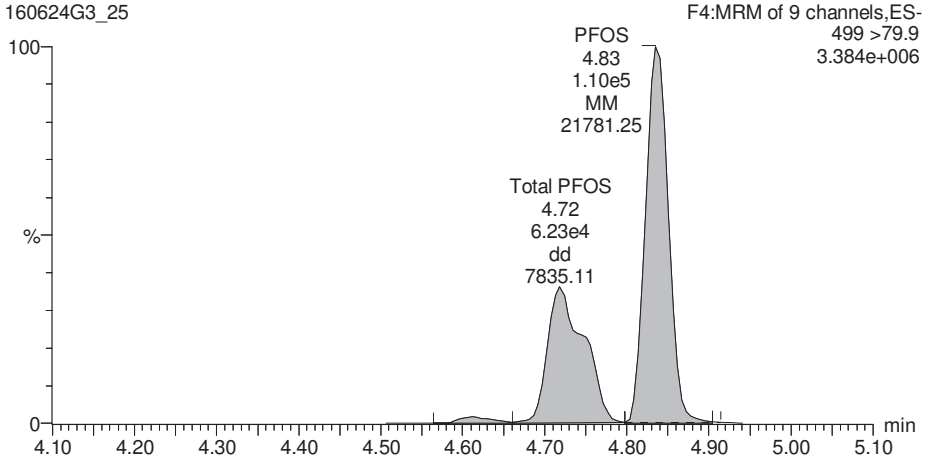
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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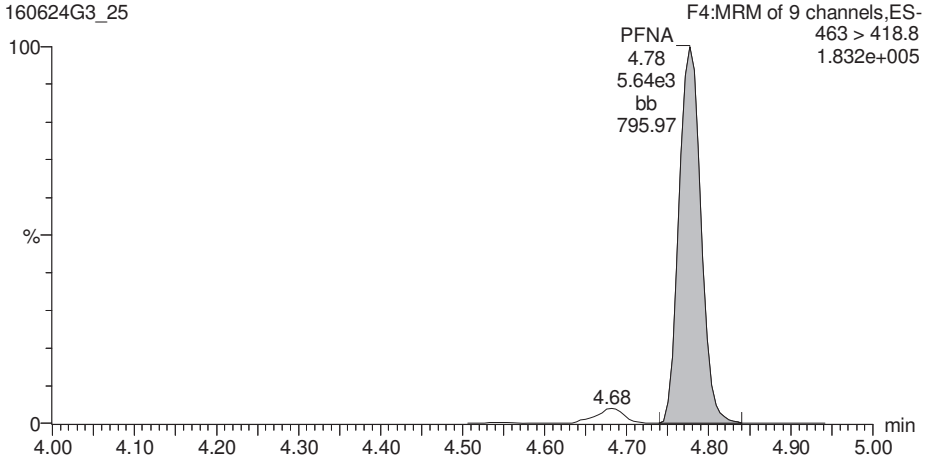
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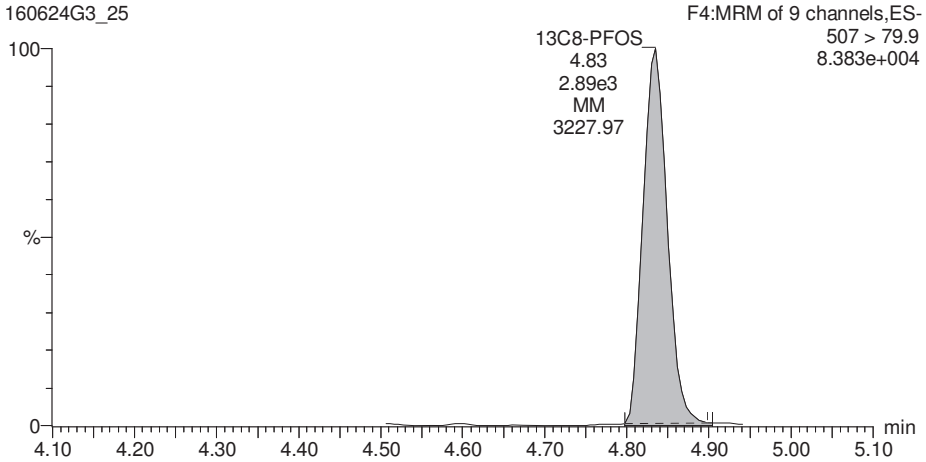
Total PFOS



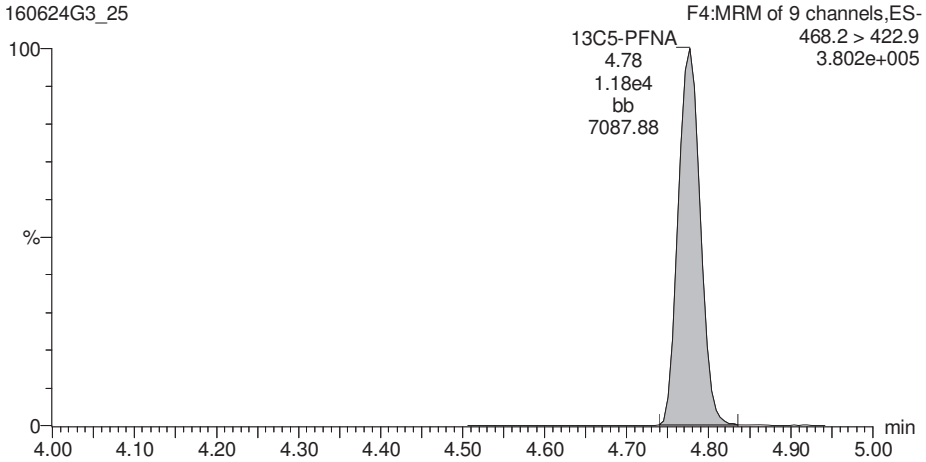
PFNA



13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16

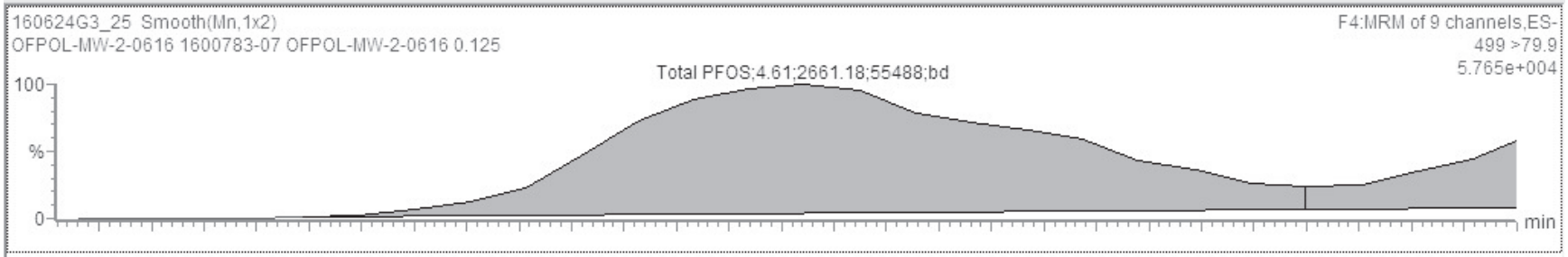
BR 6/30/16

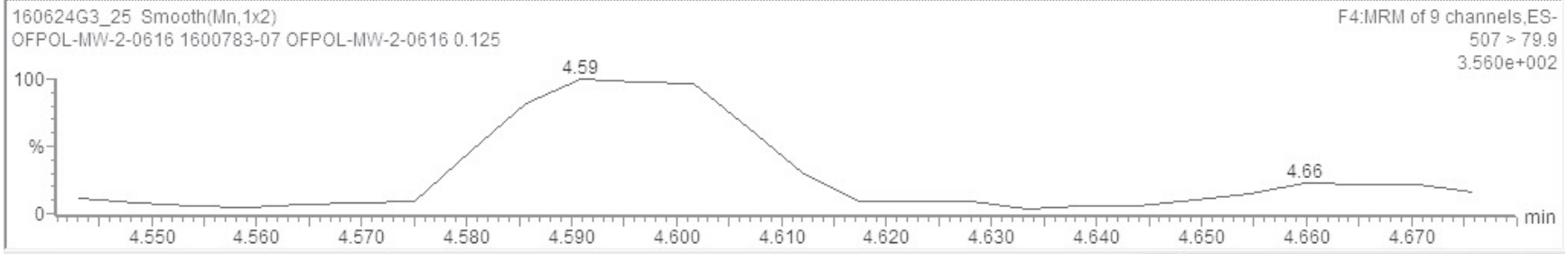
TargetLynx - 160624G3_25.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_25 - 1600783-07 OFPOL-MW-2-0616 0.125 - OFPOL-MW-2-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	84.282141	0.0929	81.7		4.301e3	0.236	3.13	7	13			0.709	25-Jun-16	05:41:19		1600783-07.
8	13C4-PFHpA	74.926058	0.0177	72.6		1.494e4	0.923	3.99	8	13			0.904	25-Jun-16	05:41:19		1600783-07.
9	18O2-PFHxS	81.394839	0.123	78.9		2.347e3	0.471	4.11	9	14			0.931	25-Jun-16	05:41:19		1600783-07.
10	13C2-PFOA	83.939235	0.0290	81.4		1.441e4	1.088	4.42	10	15			1.000	25-Jun-16	05:41:19		1600783-07.
11	13C8-PFOS	75.321312	0.0578	73.0		2.891e3	1.142	4.83	11	16			1.000	25-Jun-16	05:41:19		1600783-07.
12	13C5-PFNA	71.099678	0.0249	68.9		1.176e4	1.008	4.78	12	17			1.000	25-Jun-16	05:41:19		1600783-07.
13	13C5-PFHxA	103.17788	0.0353	100.0		2.230e4	1.000	3.47	13	13			0.000	25-Jun-16	05:41:19		1600783-07.
14	13C3-PFHxS	103.17788	0.0540	100.0		6.315e3	1.000	4.11	14	14			0.000	25-Jun-16	05:41:19		1600783-07.
15	13C8-PFOA	103.17788	0.0273	100.0		1.629e4	1.000	4.42	15	15			0.000	25-Jun-16	05:41:19		1600783-07.
16	13C4-PFOS	103.17788	0.158	100.0		3.467e3	1.000	4.83	16	16			0.000	25-Jun-16	05:41:19		1600783-07.
17	13C9-PFNA	103.17788	0.0885	100.0		1.692e4	1.000	4.78	17	17			0.000	25-Jun-16	05:41:19		1600783-07.
18	Total PFBS	201.76192							18	7				25-Jun-16	05:41:19		1600783-07.
19	Total PFHxS	3305.7765							19	9				25-Jun-16	05:41:19		1600783-07.
20	Total PFOA	1153.3180							20	10				25-Jun-16	05:41:19		1600783-07.





Ready 160624G3_25 CAP NUM

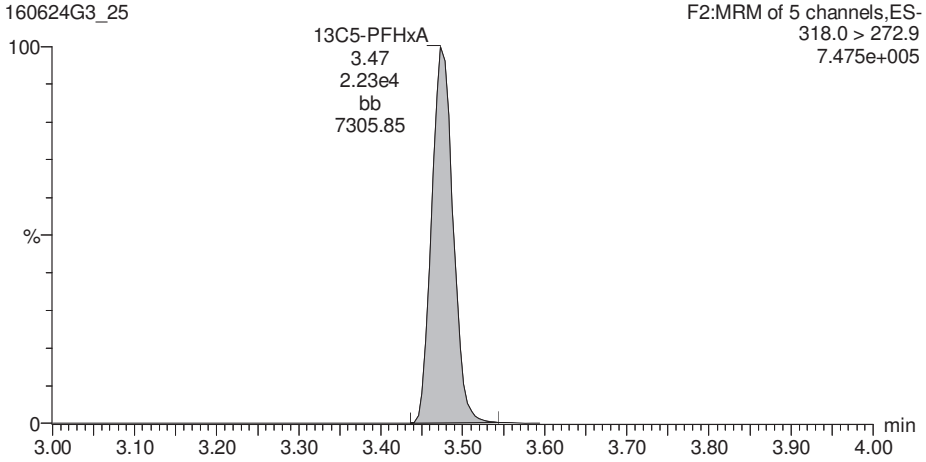
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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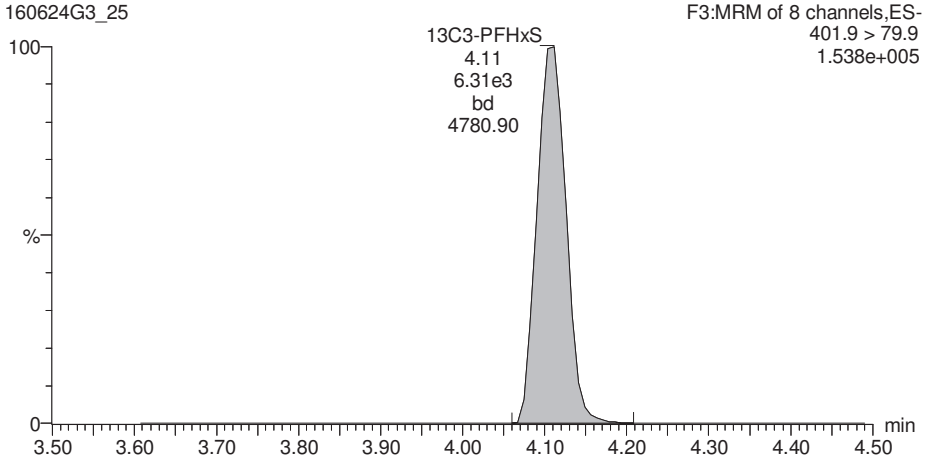
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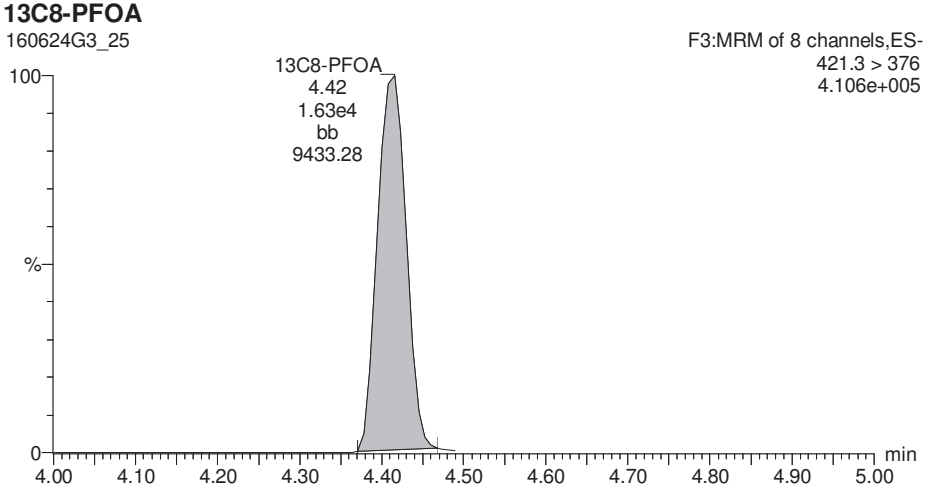
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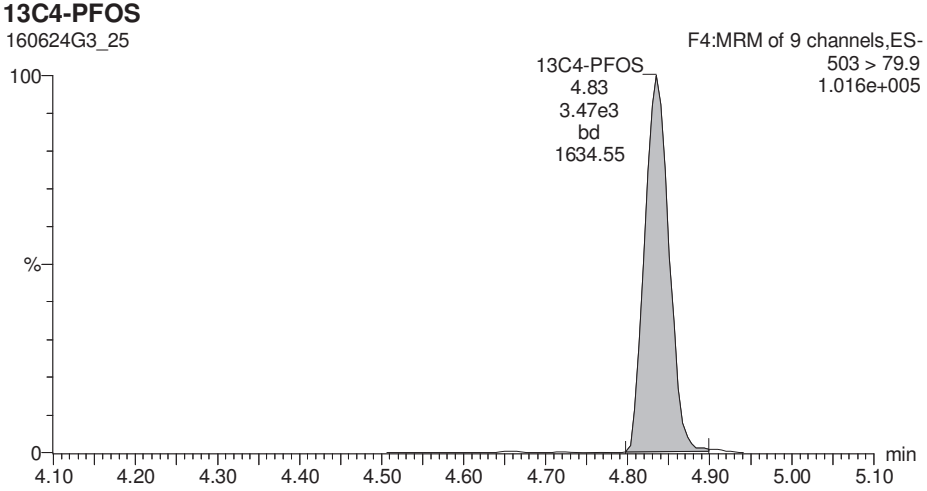
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/30/16

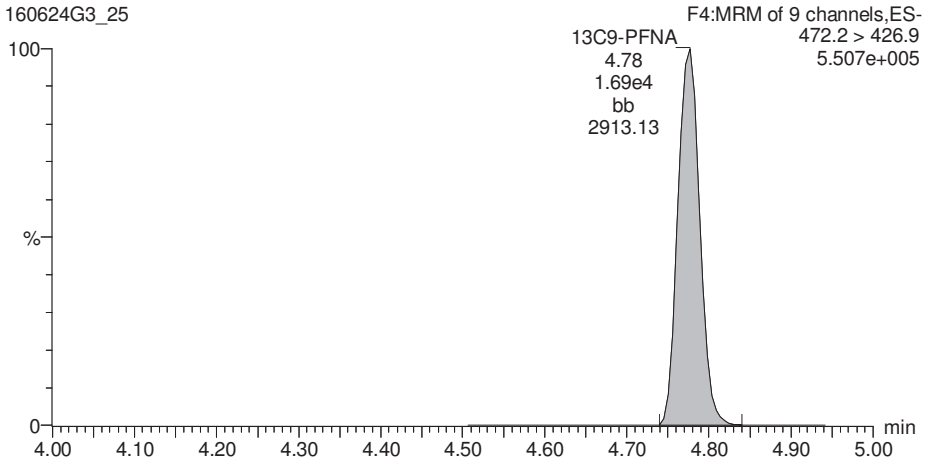
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_63.qld

Last Altered: Thursday, June 30, 2016 11:56:36 Pacific Daylight Time
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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_63.wiff, Date: 29-Jun-2016, Time: 04:33:48, ID: 1600783-07@10x, Description: OFPOL-MW-2-0616

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3	PFHxS	79.91	2.34e3	1.36e2		0.121	4.47	2.76	
2	5	PFOS	79.92	6.11e3	1.15e2		0.121	5.13	8.03	
3	9	18O2-PFHxS	102.9	1.36e2	5.95e2	0.307	0.121	4.47	0.0768	74.4
4	11	13C8-PFOS	79.93	1.15e2	1.64e2	1.026	0.121	5.12	0.0703	68.2
5	14	13C3-PFHxS	80.0	5.95e2	5.95e2	1.000	0.121	4.47	0.103	100.0
6	16	13C4-PFOS	79.94	1.64e2	1.64e2	1.000	0.121	5.12	0.103	100.0
7	19	Total PFHxS	79.91		1.36e2		0.121		3.30	
8	21	Total PFOS	79.92		1.15e2		0.121		12.7	

Target = ug/L

Reviewed: WJL 7/1/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_63.qld

Last Altered: Thursday, June 30, 2016 11:56:36 Pacific Daylight Time
Printed: Thursday, June 30, 2016 11:58:26 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_63.wiff, Date: 29-Jun-2016, Time: 04:33:48, ID: 1600783-07@10x, Description: OFPOL-MW-2-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	2.58e2	6.91e2	0.190
2	18	Total PFBS	79.9	3.34	4.88e0	6.91e2	0.00360

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	2.34e3	1.36e2	2.76
2	19	Total PFHxS	79.91	4.37	1.63e2	1.36e2	0.193
3	19	Total PFHxS	79.91	4.37	1.62e2	1.36e2	0.191
4	19	Total PFHxS	79.91	4.34	1.24e2	1.36e2	0.146
5	19	Total PFHxS	79.91	4.26	8.39e0	1.36e2	0.00991

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	368.9	4.65	7.37e2	8.55e2	0.210
2	4	PFOA	368.9	4.75	3.63e3	8.55e2	1.03

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	6.11e3	1.15e2	8.03
2	21	Total PFOS	79.92	5.02	3.32e3	1.15e2	4.37
3	21	Total PFOS	79.92	4.92	2.55e2	1.15e2	0.334

Reviewed: WJL 7/1/16 pw 6/30/16

Vista Analytical Laboratory Q2

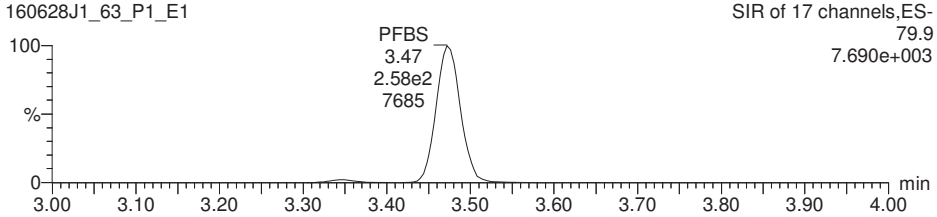
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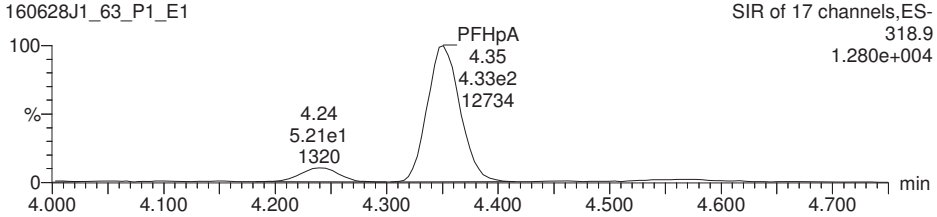
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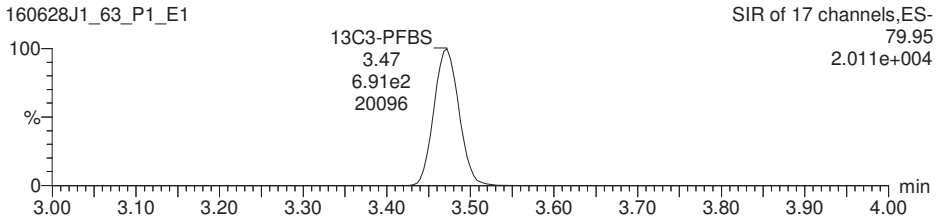
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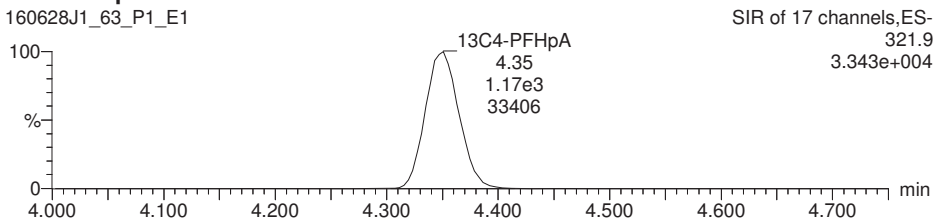
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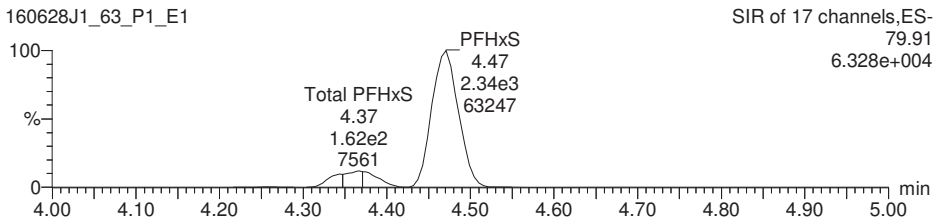
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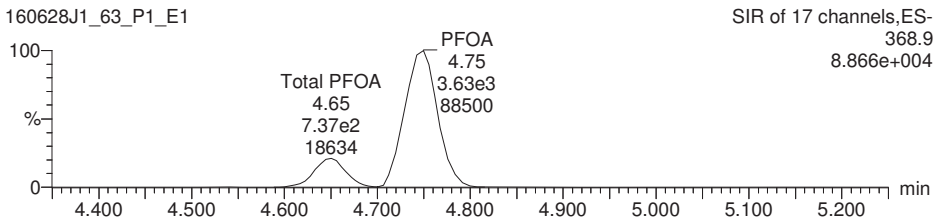
13C4-PFHpA



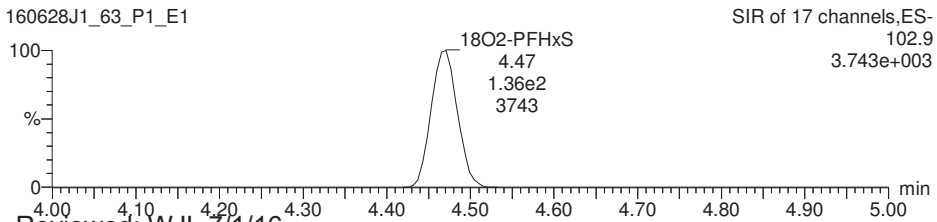
PFHxS



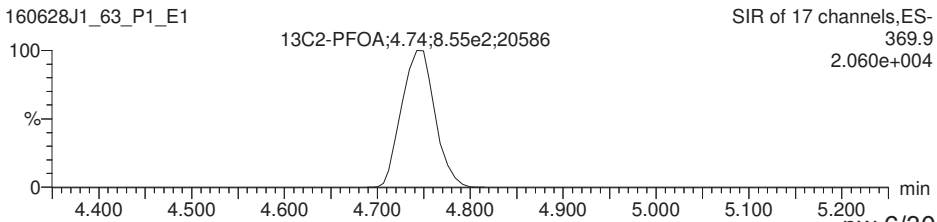
PFOA



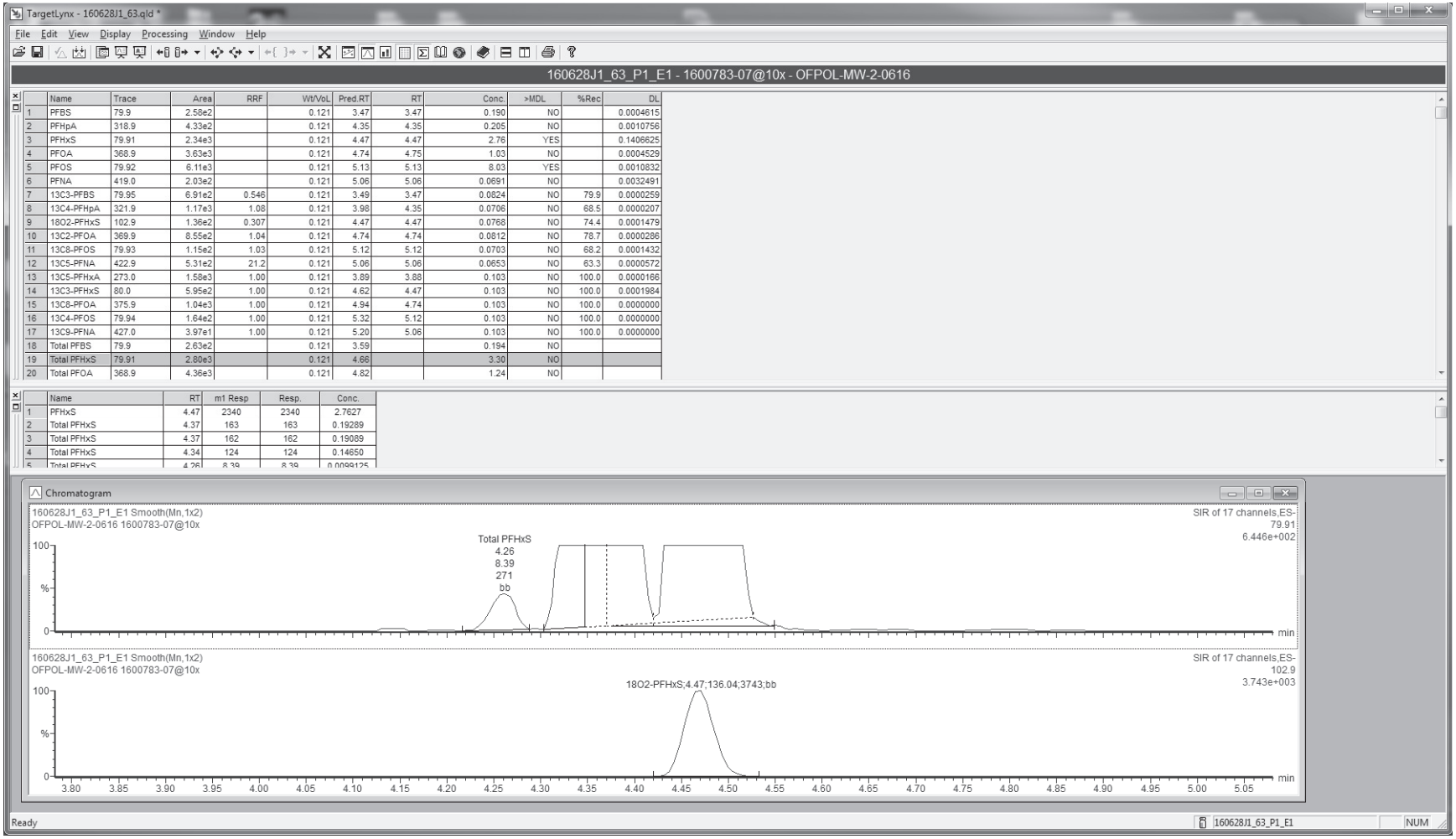
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 7/1/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.58e2		0.121	3.47	3.47	0.190	NO		0.0004615
2	PFHpA	318.9	4.33e2		0.121	4.35	4.35	0.205	NO		0.0010756
3	PFHxS	79.91	2.34e3		0.121	4.47	4.47	2.76	YES		0.1406625
4	PFOA	368.9	3.63e3		0.121	4.74	4.75	1.03	NO		0.0004529
5	PFOS	79.92	6.11e3		0.121	5.13	5.13	8.03	YES		0.0010832
6	PFNA	419.0	2.03e2		0.121	5.06	5.06	0.0691	NO		0.0032491
7	13C3-PFBS	79.95	6.91e2	0.546	0.121	3.49	3.47	0.0824	NO	79.9	0.0000259
8	13C4-PFHpA	321.9	1.17e3	1.08	0.121	3.98	4.35	0.0706	NO	68.5	0.0000207
9	18O2-PFHxS	102.9	1.36e2	0.307	0.121	4.47	4.47	0.0768	NO	74.4	0.0001479
10	13C2-PFOA	369.9	8.55e2	1.04	0.121	4.74	4.74	0.0812	NO	78.7	0.0000286
11	13C8-PFOS	79.93	1.15e2	1.03	0.121	5.12	5.12	0.0703	NO	68.2	0.0001432
12	13C5-PFNA	422.9	5.31e2	21.2	0.121	5.06	5.06	0.0653	NO	63.3	0.0000572
13	13C5-PFHxA	273.0	1.58e3	1.00	0.121	3.89	3.88	0.103	NO	100.0	0.0000166
14	13C3-PFHxS	80.0	5.95e2	1.00	0.121	4.62	4.47	0.103	NO	100.0	0.0001984
15	13C8-PFOA	375.9	1.04e3	1.00	0.121	4.94	4.74	0.103	NO	100.0	0.0000000
16	13C4-PFOS	79.94	1.64e2	1.00	0.121	5.32	5.12	0.103	NO	100.0	0.0000000
17	13C9-PFNA	427.0	3.97e1	1.00	0.121	5.20	5.06	0.103	NO	100.0	0.0000000
18	Total PFBS	79.9	2.63e2		0.121	3.59		0.194	NO		
19	Total PFHxS	79.91	2.80e3		0.121	4.66		3.30	NO		
20	Total PFOA	368.9	4.36e3		0.121	4.82		1.24	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	2340	2340	2.7627
2	Total PFHxS	4.37	163	163	0.19289
3	Total PFHxS	4.37	162	162	0.19089
4	Total PFHxS	4.34	124	124	0.14650
5	Total PFHxS	4.26	8.39	8.39	0.0099125

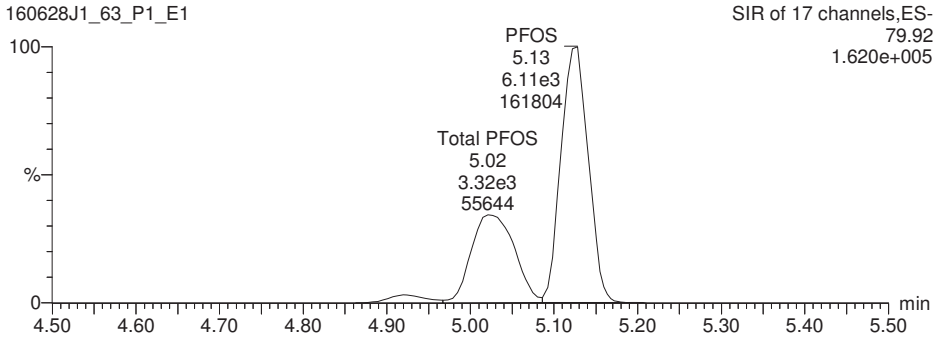
Reviewed: WJL 7/1/16 pw 6/30/16

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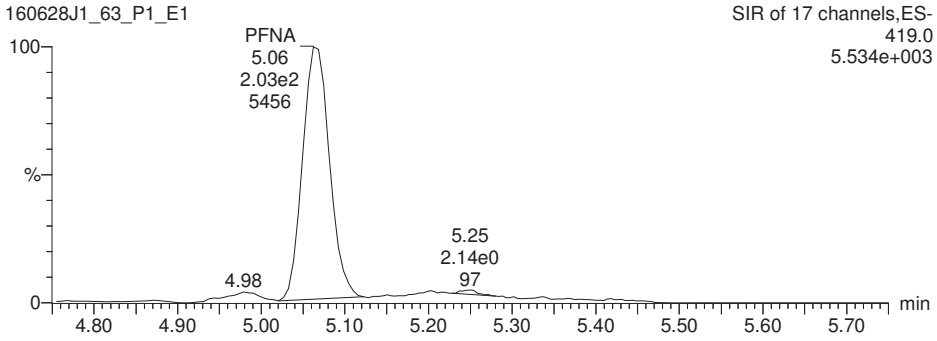
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Name: 160628J1_63.wiff, Date: 29-Jun-2016, Time: 04:33:48, ID: 1600783-07@10x, Description: OFPOL-MW-2-0616

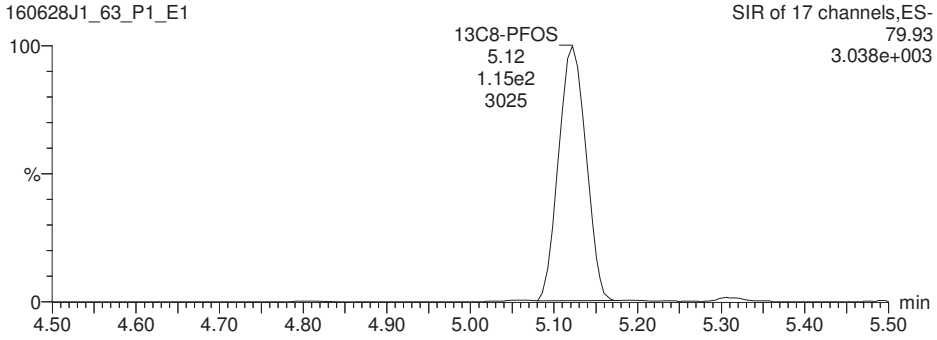
PFOS



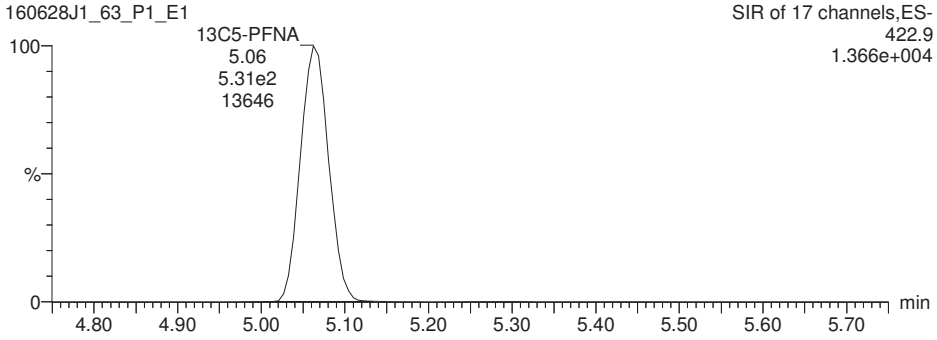
PFNA



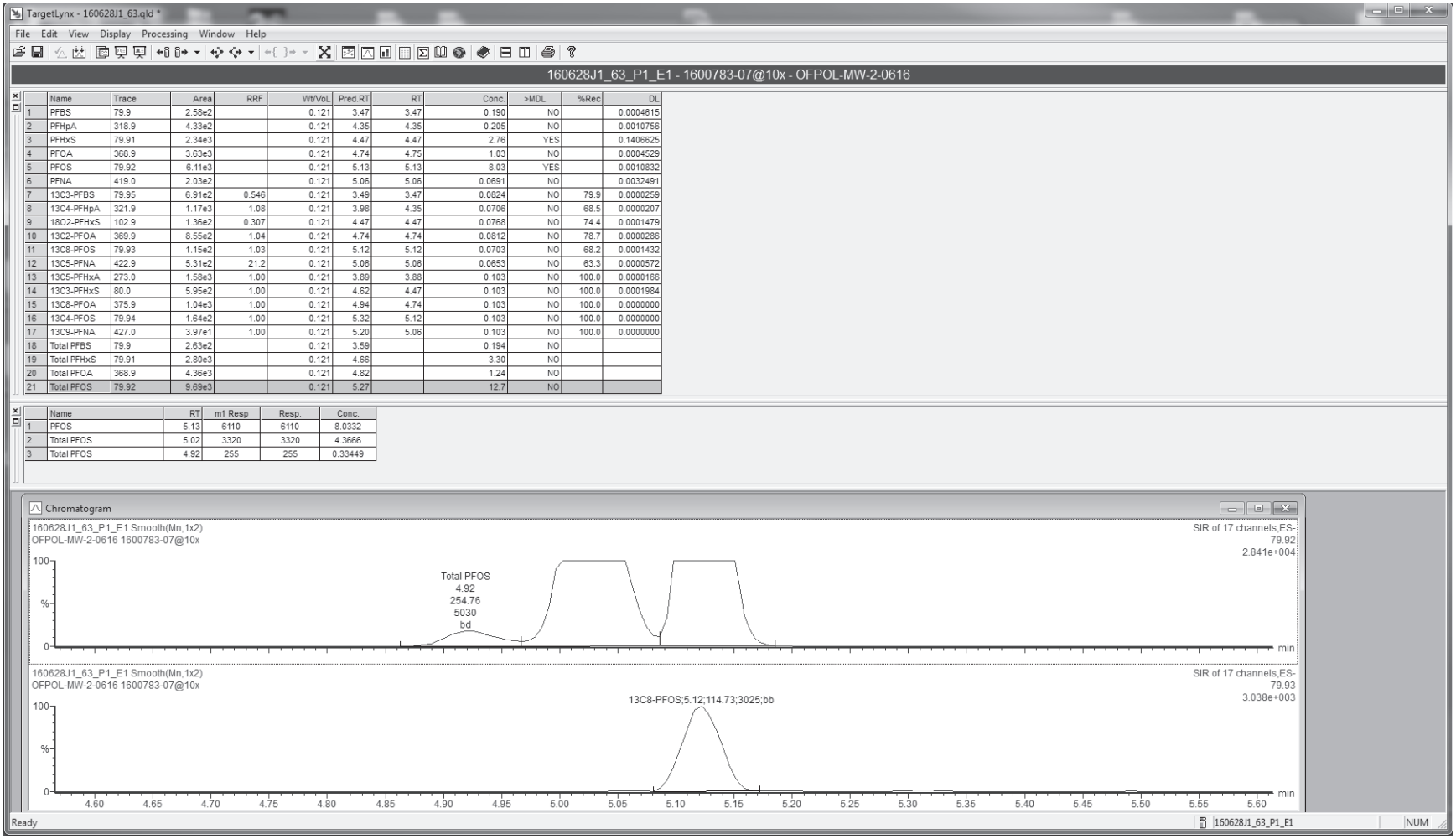
13C8-PFOS



13C5-PFNA



Reviewed: WJL 7/1/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.58e2		0.121	3.47	3.47	0.190	NO		0.0004615
2	PFHpA	318.9	4.33e2		0.121	4.35	4.35	0.205	NO		0.0010756
3	PFHxS	79.91	2.34e3		0.121	4.47	4.47	2.76	YES		0.1406625
4	PFOA	368.9	3.63e3		0.121	4.74	4.75	1.03	NO		0.0004529
5	PFOS	79.92	6.11e3		0.121	5.13	5.13	8.03	YES		0.0010832
6	PFNA	419.0	2.03e2		0.121	5.06	5.06	0.0691	NO		0.0032491
7	13C3-PFBS	79.95	6.91e2	0.546	0.121	3.49	3.47	0.0824	NO	79.9	0.0000259
8	13C4-PFHpA	321.9	1.17e3	1.08	0.121	3.98	4.35	0.0706	NO	68.5	0.0000207
9	18O2-PFHxS	102.9	1.36e2	0.307	0.121	4.47	4.47	0.0768	NO	74.4	0.0001479
10	13C2-PFOA	369.9	8.55e2	1.04	0.121	4.74	4.74	0.0812	NO	78.7	0.0000286
11	13C8-PFOS	79.93	1.15e2	1.03	0.121	5.12	5.12	0.0703	NO	68.2	0.0001432
12	13C5-PFNA	422.9	5.31e2	21.2	0.121	5.06	5.06	0.0653	NO	63.3	0.0000572
13	13C5-PFHxA	273.0	1.58e3	1.00	0.121	3.89	3.88	0.103	NO	100.0	0.0000166
14	13C3-PFHxS	80.0	5.95e2	1.00	0.121	4.62	4.47	0.103	NO	100.0	0.0001984
15	13C8-PFOA	375.9	1.04e3	1.00	0.121	4.94	4.74	0.103	NO	100.0	0.0000000
16	13C4-PFOS	79.94	1.64e2	1.00	0.121	5.32	5.12	0.103	NO	100.0	0.0000000
17	13C9-PFNA	427.0	3.97e1	1.00	0.121	5.20	5.06	0.103	NO	100.0	0.0000000
18	Total PFBS	79.9	2.63e2		0.121	3.59		0.194	NO		
19	Total PFHxS	79.91	2.80e3		0.121	4.66		3.30	NO		
20	Total PFOA	368.9	4.36e3		0.121	4.82		1.24	NO		
21	Total PFOS	79.92	9.69e3		0.121	5.27		12.7	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.13	6110	6110	8.0332
2	Total PFOS	5.02	3320	3320	4.3666
3	Total PFOS	4.92	255	255	0.33449

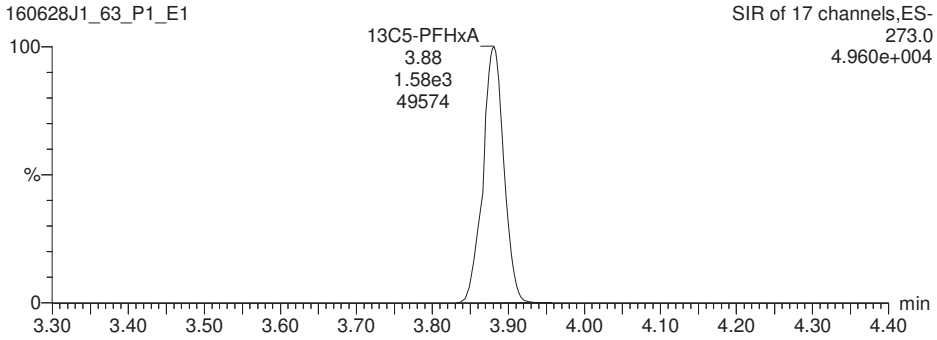
Reviewed: WJL 7/1/16 pw 6/30/16

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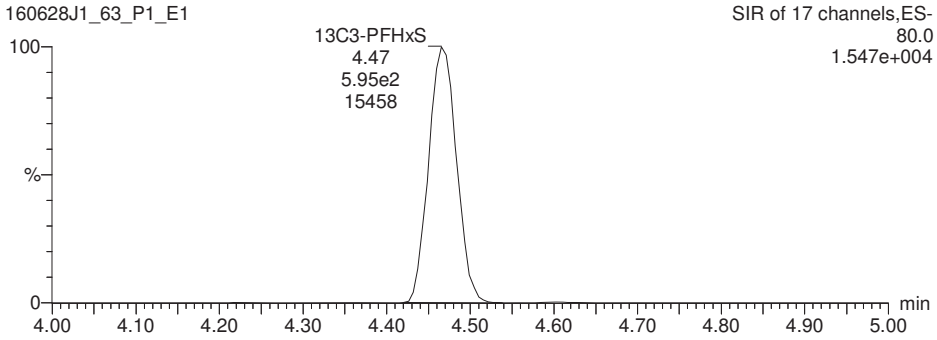
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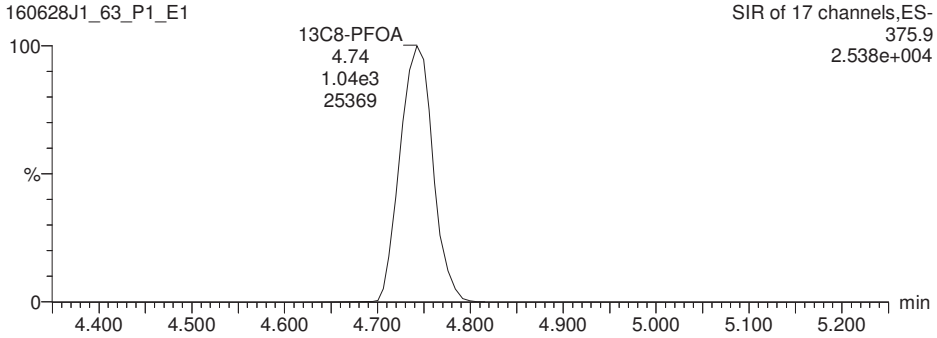
13C5-PFHxA



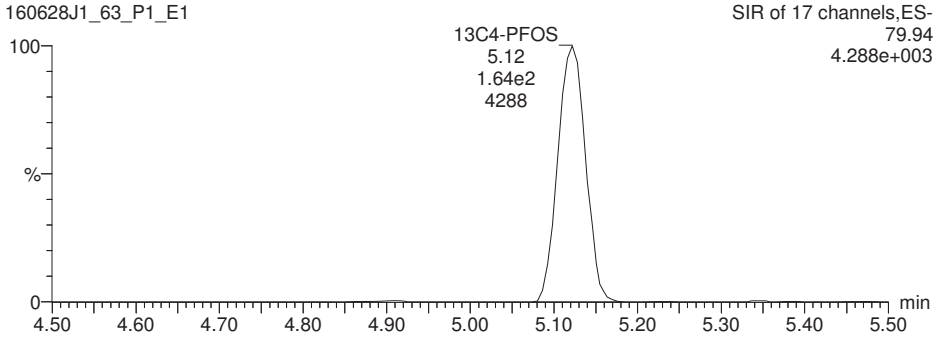
13C3-PFHxS



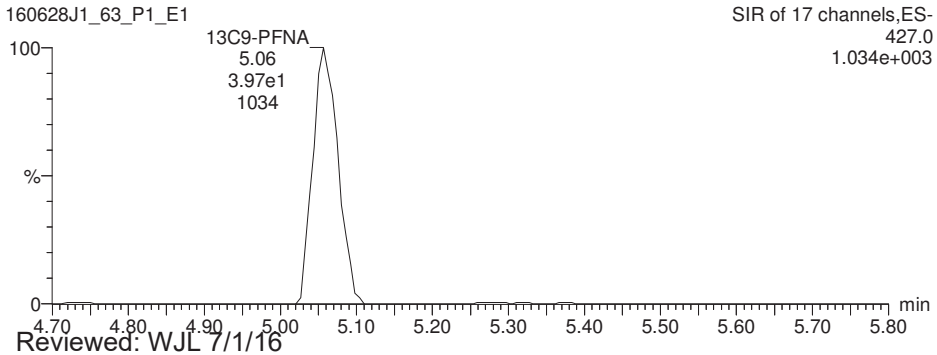
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 7/1/16 pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_26.qld

Last Altered: Thursday, June 30, 2016 07:36:40 Pacific Daylight Time
Printed: Thursday, June 30, 2016 07:36:45 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-08 OF-MW13-0616 0.125, Description: OF-MW13-0616, Name: 160624G3_26, Date: 25-Jun-2016, Time: 05:54:00

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	2.864e3	4.768e3		0.121	3.14	75.7		
2	2	PFHpA	363 > 318.9	7.328e3	1.724e4		0.121	3.99	36.8		
3	3	PFHxS	398.9 > 79.6	3.964e4	2.723e3		0.121	4.11	1720	E*	
4	4	PFOA	413 > 368.7	6.379e4	1.673e4		0.121	4.42	528		
5	5	PFOS	499 >79.9	5.905e4	4.413e3		0.121	4.83	2810	E*	
6	6	PFNA	463 > 418.8	5.399e2	1.483e4		0.121	4.78	4.85		
7	7	13C3-PFBS	302.0 > 98.8	4.768e3	2.421e4	0.236	0.121	3.13	86.4		83.4
8	8	13C4-PFHpA	367.2 > 321.8	1.724e4	2.421e4	0.923	0.121	3.99	79.9		77.2
9	9	18O2-PFHxS	403 > 102.6	2.723e3	6.626e3	0.471	0.121	4.11	90.3	*	87.2
10	10	13C2-PFOA	414.9 > 369.7	1.673e4	1.839e4	1.088	0.121	4.42	86.6		83.6
11	11	13C8-PFOS	507 > 79.9	4.413e3	5.008e3	1.142	0.121	4.83	79.9	*	77.2
12	12	13C5-PFNA	468.2 > 422.9	1.483e4	1.802e4	1.008	0.121	4.78	84.5		81.6
13	13	13C5-PFHxA	318.0 > 272.9	2.421e4	2.421e4	1.000	0.121	3.48	104		100
14	14	13C3-PFHxS	401.9 > 79.9	6.626e3	6.626e3	1.000	0.121	4.11	104		100
15	15	13C8-PFOA	421.3 > 376	1.839e4	1.839e4	1.000	0.121	4.42	104		100
16	16	13C4-PFOS	503 > 79.9	5.008e3	5.008e3	1.000	0.121	4.83	104		100
17	17	13C9-PFNA	472.2 > 426.9	1.802e4	1.802e4	1.000	0.121	4.78	104		100
18	18	Total PFBS	299 > 79.7		4.768e3		0.121		77.0		
19	19	Total PFHxS	398.9 > 79.6		2.723e3		0.121		2160		
20	20	Total PFOA	413 > 368.7		1.673e4		0.121		657		
21	21	Total PFOS	499 > 79.9		4.413e3		0.121		4330		

*SEE 1:5 DILUTION

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_26.qld

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Printed: Thursday, June 30, 2016 07:36:45 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-08 OF-MW13-0616 0.125, Description: OF-MW13-0616, Name: 160624G3_26, Date: 25-Jun-2016, Time: 05:54:00

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.14	2864.035	4767.586	75.7
2	18	Total PFBS	299 > 79.7	3.03	48.869	4767.586	1.3

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	39641.305	2723.054	1723.5
2	19	Total PFHxS	398.9 > 79.6	4.00	8513.305	2723.054	430.6
3	19	Total PFHxS	398.9 > 79.6	3.90	32.285	2723.054	1.7

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	63788.410	16727.998	528.4
2	20	Total PFOA	413 > 368.7	4.31	15357.552	16727.998	127.2
3	20	Total PFOA	413 > 368.7	4.19	181.387	16727.998	1.5

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.83	59048.723	4413.385	2806.7
2	21	Total PFOS	499 >79.9	4.74	10516.598	4413.385	528.4
3	21	Total PFOS	499 >79.9	4.72	18886.465	4413.385	939.3
4	21	Total PFOS	499 >79.9	4.61	1174.431	4413.385	59.7

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

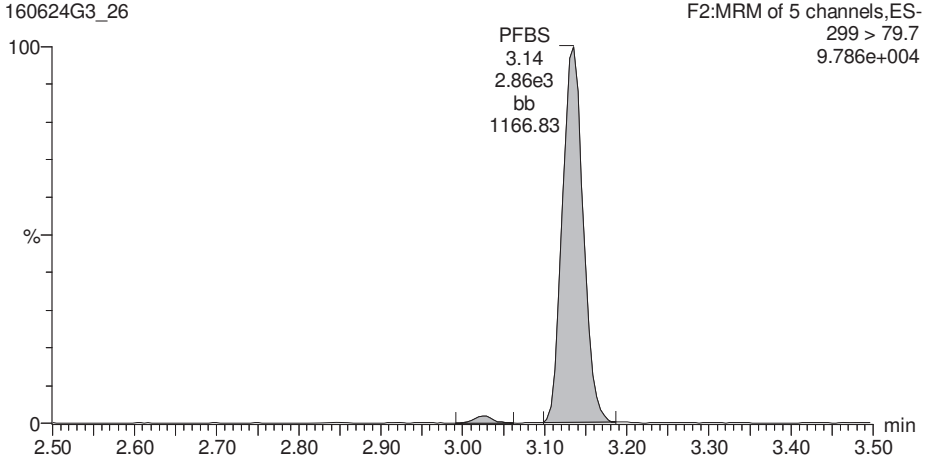
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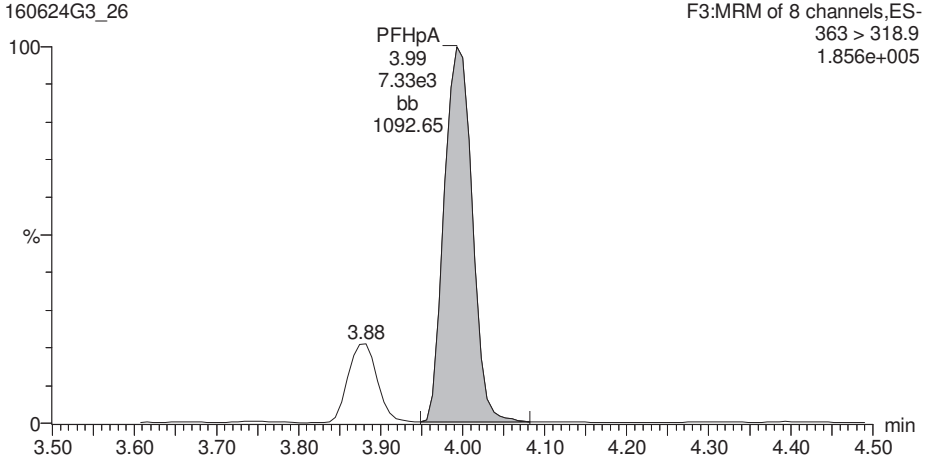
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ID: 1600783-08 OF-MW13-0616 0.125, Description: OF-MW13-0616, Name: 160624G3_26, Date: 25-Jun-2016, Time: 05:54:00, Instrument: , Lab: , User:

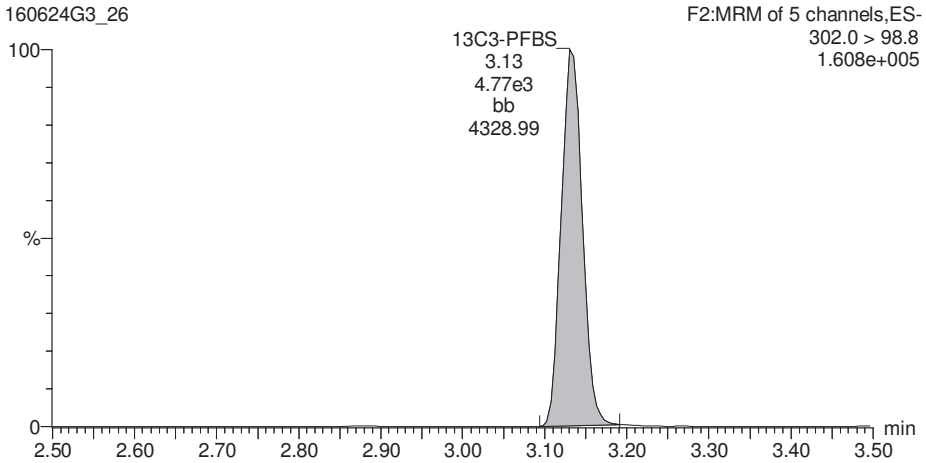
Total PFBS



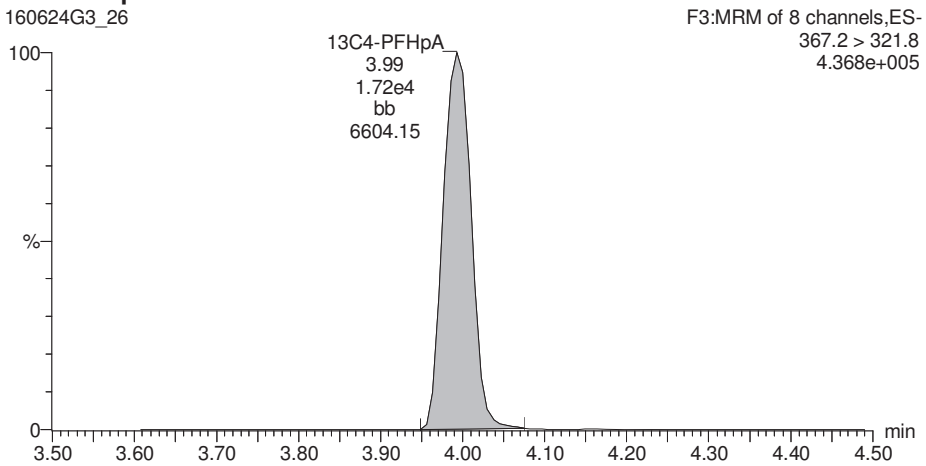
PFHpA



13C3-PFBS



13C4-PFHpA



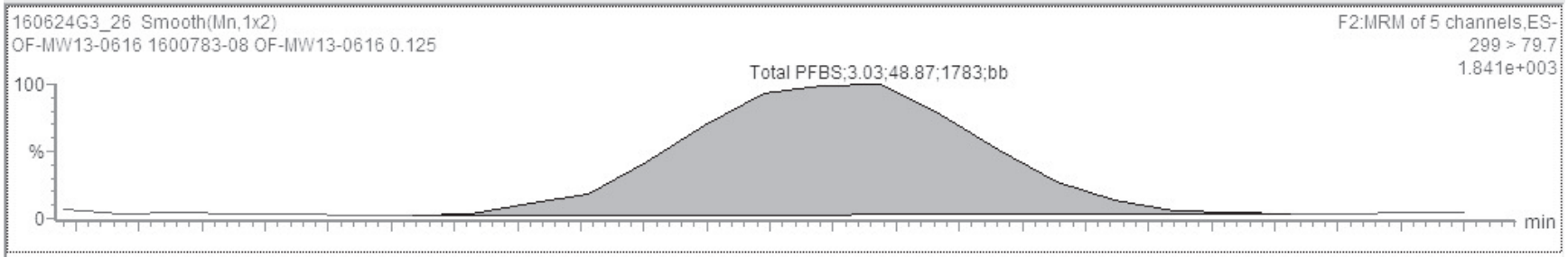
Reviewed: WJL 6/30/16 BR 6/30/16

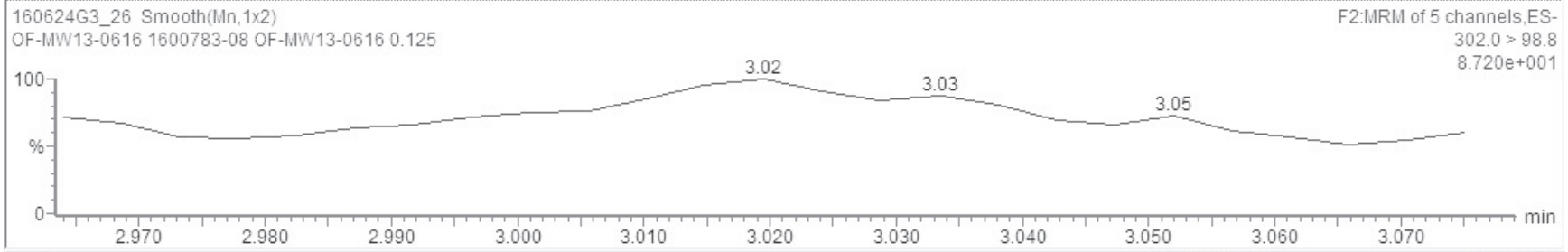
TargetLynx - 160624G3_26.qld - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_26 - 1600783-08 OF-MW13-0616 0.125 - OF-MW13-0616

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7	13C3-PFBS	86.362190	0.0495	83.4		4.768e3	0.236	3.13	7	13			0.709	25-Jun-16	05:54:00		1600783-08.
8	13C4-PFHpA	79.938557	0.0226	77.2		1.724e4	0.923	3.99	8	13			0.904	25-Jun-16	05:54:00		1600783-08.
9	18O2-PFHxS	90.512947	0.0963	87.4		2.729e3	0.471	4.11	9	14			0.931	25-Jun-16	05:54:00		1600783-08.
10	13C2-PFOA	86.607299	0.0167	83.6		1.642e4	1.088	4.42	10	15			1.000	25-Jun-16	05:54:00		1600783-08.
11	13C8-PFOS	79.330206	0.0319	76.6		4.382e3	1.142	4.83	11	16			1.000	25-Jun-16	05:54:00		1600783-08.
12	13C5-PFNA	84.527186	0.0143	81.6		1.483e4	1.008	4.78	12	17			1.000	25-Jun-16	05:54:00		1600783-08.
13	13C5-PFHxA	103.54539	0.0281	100.0		2.421e4	1.000	3.48	13	13			0.000	25-Jun-16	05:54:00		1600783-08.
14	13C3-PFHxS	103.54539	0.0564	100.0		6.626e3	1.000	4.11	14	14			0.000	25-Jun-16	05:54:00		1600783-08.
15	13C8-PFOA	103.54539	0.0345	100.0		1.804e4	1.000	4.42	15	15			0.000	25-Jun-16	05:54:00		1600783-08.
16	13C4-PFOS	103.54539	0.0192	100.0		5.008e3	1.000	4.83	16	16			0.000	25-Jun-16	05:54:00		1600783-08.
17	13C9-PFNA	103.54539	0.0629	100.0		1.802e4	1.000	4.78	17	17			0.000	25-Jun-16	05:54:00		1600783-08.
18	Total PFBS	76.975190							18	7				25-Jun-16	05:54:00		1600783-08.
19	Total PFHxS	2151.7926							19	9				25-Jun-16	05:54:00		1600783-08.
20	Total PFOA	657.56545							20	10				25-Jun-16	05:54:00		1600783-08.





Ready 160624G3_26 CAP NUM

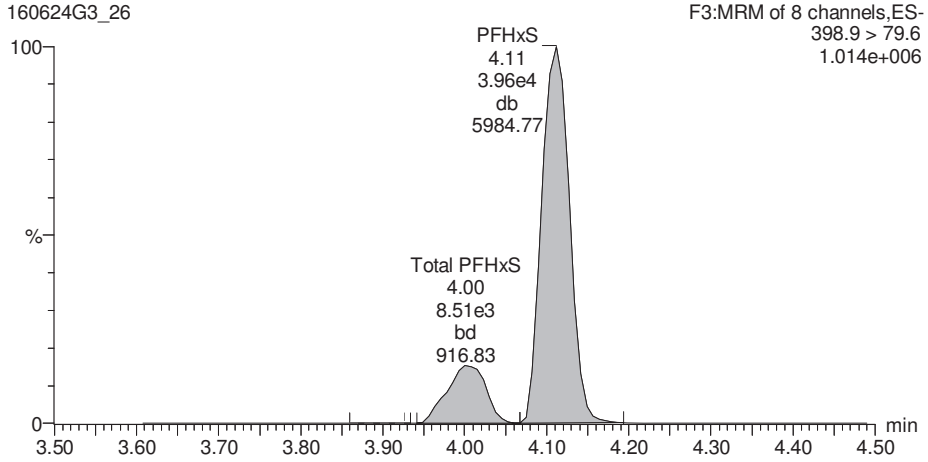
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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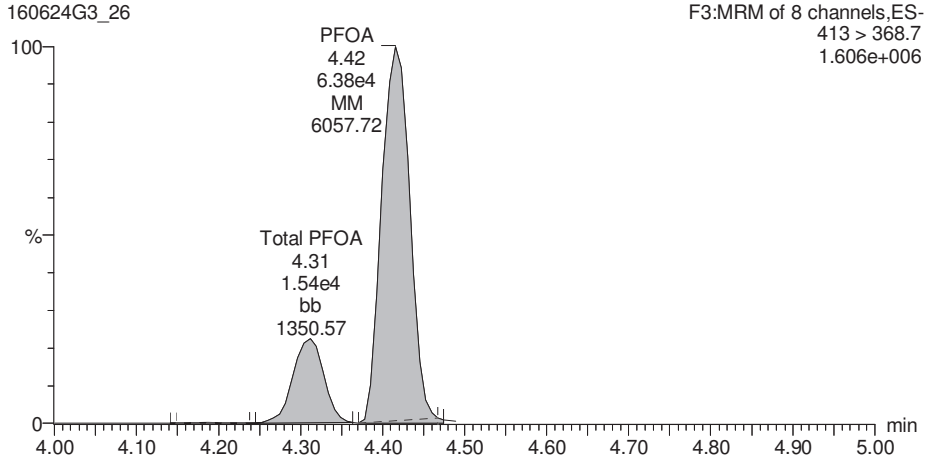
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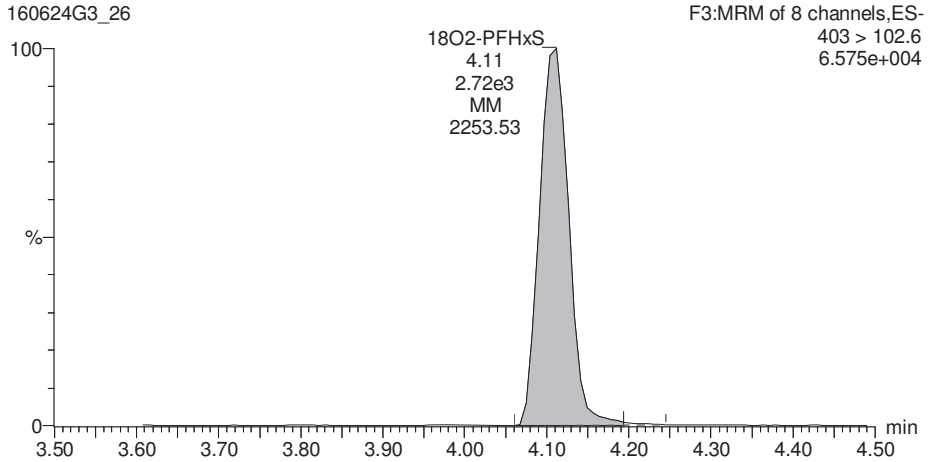
Total PFHxS



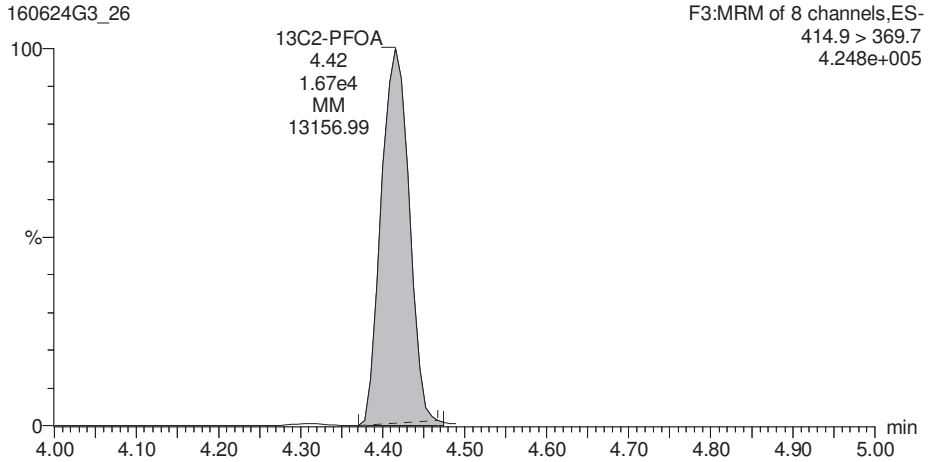
Total PFOA



18O2-PFHxS



13C2-PFOA



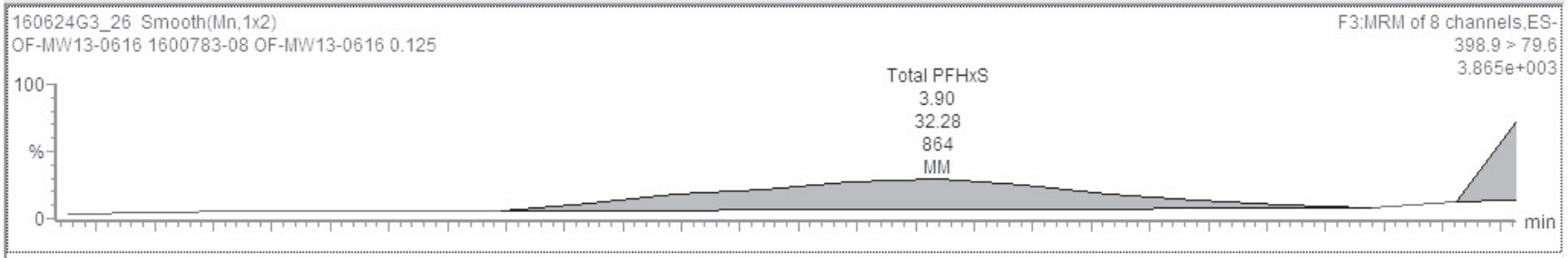
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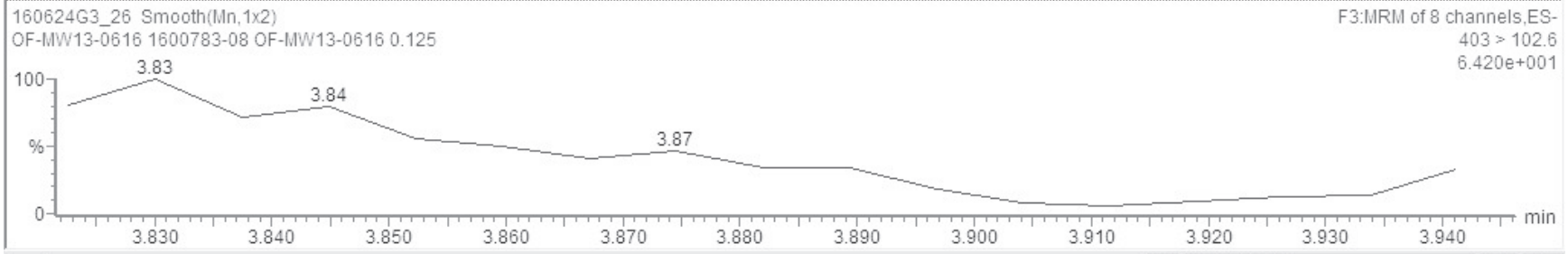
TargetLynx - 160624G3_26.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_26 - 1600783-08 OF-MW13-0616 0.125 - OF-MW13-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	86.362190	0.0495	83.4		4.768e3	0.236	3.13	7	13			0.709	25-Jun-16	05:54:00		1600783-08.
8	13C4-PFHpA	79.938557	0.0226	77.2		1.724e4	0.923	3.99	8	13			0.904	25-Jun-16	05:54:00		1600783-08.
9	18O2-PFHxS	90.320898	0.0963	87.2		2.723e3	0.471	4.11	9	14			0.931	25-Jun-16	05:54:00		1600783-08.
10	13C2-PFOA	86.607299	0.0167	83.6		1.642e4	1.088	4.42	10	15			1.000	25-Jun-16	05:54:00		1600783-08.
11	13C8-PFOS	79.330206	0.0319	76.6		4.382e3	1.142	4.83	11	16			1.000	25-Jun-16	05:54:00		1600783-08.
12	13C5-PFNA	84.527186	0.0143	81.6		1.483e4	1.008	4.78	12	17			1.000	25-Jun-16	05:54:00		1600783-08.
13	13C5-PFHxA	103.54539	0.0281	100.0		2.421e4	1.000	3.48	13	13			0.000	25-Jun-16	05:54:00		1600783-08.
14	13C3-PFHxS	103.54539	0.0564	100.0		6.626e3	1.000	4.11	14	14			0.000	25-Jun-16	05:54:00		1600783-08.
15	13C8-PFOA	103.54539	0.0345	100.0		1.804e4	1.000	4.42	15	15			0.000	25-Jun-16	05:54:00		1600783-08.
16	13C4-PFOS	103.54539	0.0192	100.0		5.008e3	1.000	4.83	16	16			0.000	25-Jun-16	05:54:00		1600783-08.
17	13C9-PFNA	103.54539	0.0629	100.0		1.802e4	1.000	4.78	17	17			0.000	25-Jun-16	05:54:00		1600783-08.
18	Total PFBS	76.975190							18	7				25-Jun-16	05:54:00		1600783-08.
19	Total PFHxS	2155.9097							19	9				25-Jun-16	05:54:00		1600783-08.
20	Total PFOA	657.56545							20	10				25-Jun-16	05:54:00		1600783-08.





Ready 160624G3_26 CAP NUM

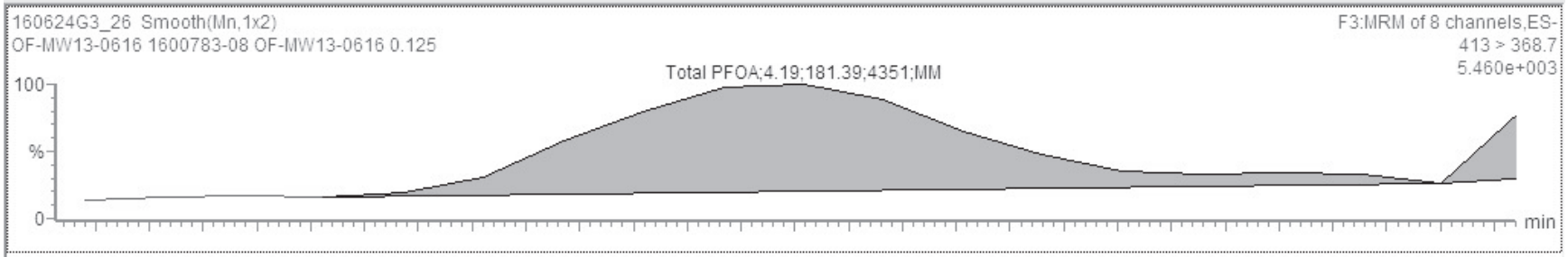
Reviewed: WJL 6/30/16 BR 6/30/16

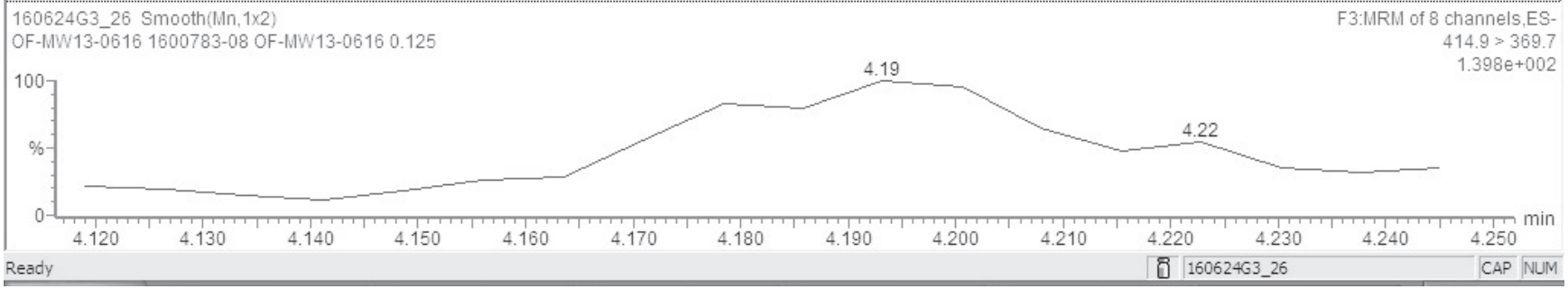
TargetLynx - 160624G3_26.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_26 - 1600783-08 OF-MW13-0616 0.125 - OF-MW13-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	86.362190	0.0495	83.4		4.768e3	0.236	3.13	7	13			0.709	25-Jun-16	05:54:00		1600783-08.
8	13C4-PFHpA	79.938557	0.0226	77.2		1.724e4	0.923	3.99	8	13			0.904	25-Jun-16	05:54:00		1600783-08.
9	18O2-PFHxS	90.320898	0.0963	87.2		2.723e3	0.471	4.11	9	14			0.931	25-Jun-16	05:54:00		1600783-08.
10	13C2-PFOA	88.257365	0.0167	85.2		1.673e4	1.088	4.42	10	15			1.000	25-Jun-16	05:54:00		1600783-08.
11	13C8-PFOS	79.330206	0.0319	76.6		4.382e3	1.142	4.83	11	16			1.000	25-Jun-16	05:54:00		1600783-08.
12	13C5-PFNA	84.527186	0.0143	81.6		1.483e4	1.008	4.78	12	17			1.000	25-Jun-16	05:54:00		1600783-08.
13	13C5-PFHxA	103.54539	0.0281	100.0		2.421e4	1.000	3.48	13	13			0.000	25-Jun-16	05:54:00		1600783-08.
14	13C3-PFHxS	103.54539	0.0564	100.0		6.626e3	1.000	4.11	14	14			0.000	25-Jun-16	05:54:00		1600783-08.
15	13C8-PFOA	103.54539	0.0345	100.0		1.804e4	1.000	4.42	15	15			0.000	25-Jun-16	05:54:00		1600783-08.
16	13C4-PFOS	103.54539	0.0192	100.0		5.008e3	1.000	4.83	16	16			0.000	25-Jun-16	05:54:00		1600783-08.
17	13C9-PFNA	103.54539	0.0629	100.0		1.802e4	1.000	4.78	17	17			0.000	25-Jun-16	05:54:00		1600783-08.
18	Total PFBS	76.975190							18	7				25-Jun-16	05:54:00		1600783-08.
19	Total PFHxS	2155.9097							19	9				25-Jun-16	05:54:00		1600783-08.
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Ready 160624G3_26 CAP NUM

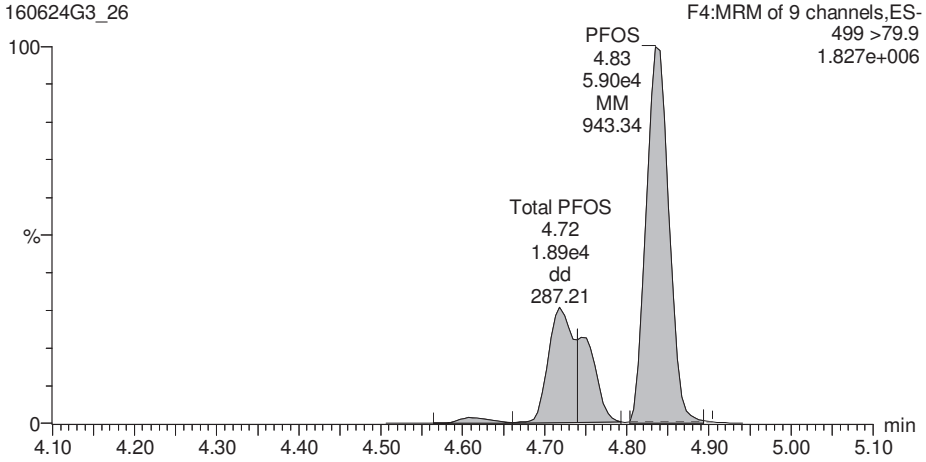
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_26.qld

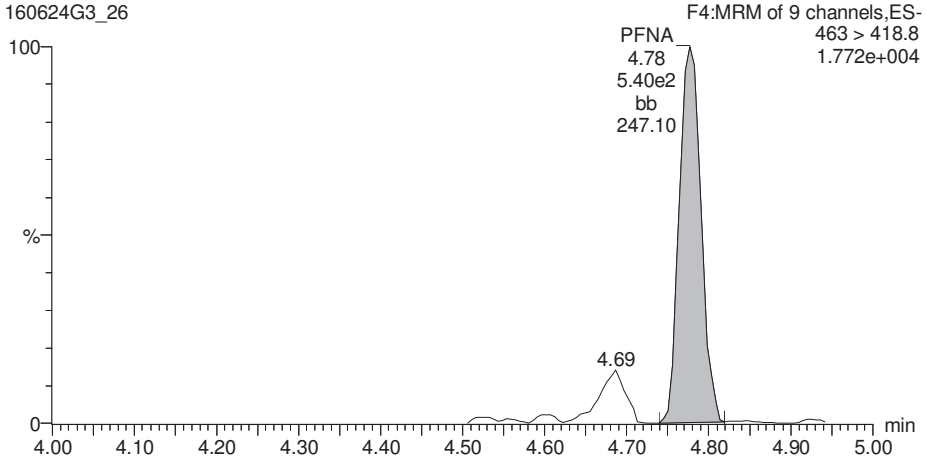
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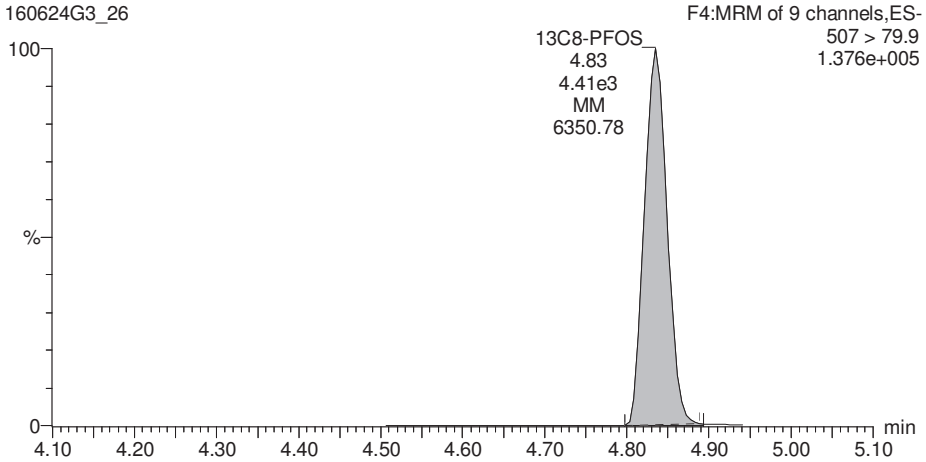
Total PFOS



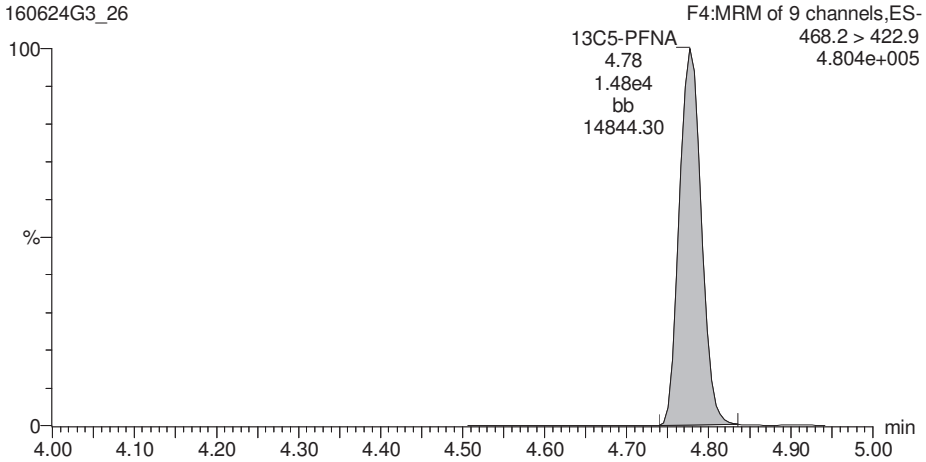
PFNA



13C8-PFOS



13C5-PFNA



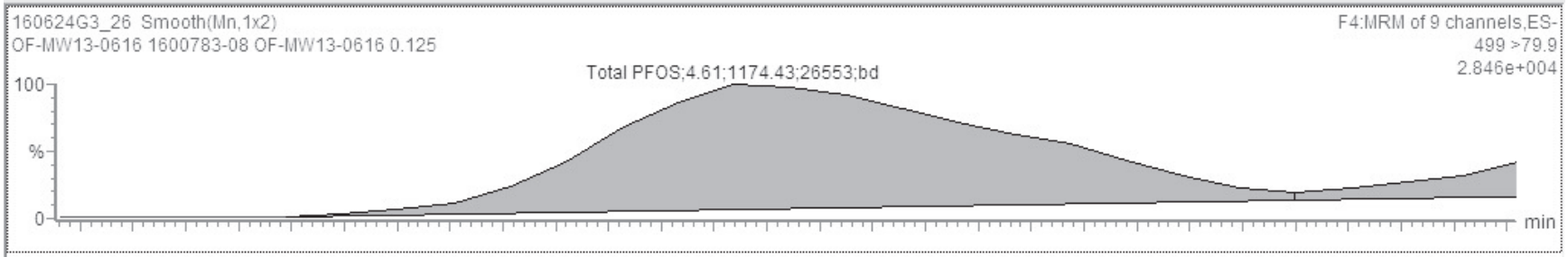
Reviewed: WJL 6/30/16 BR 6/30/16

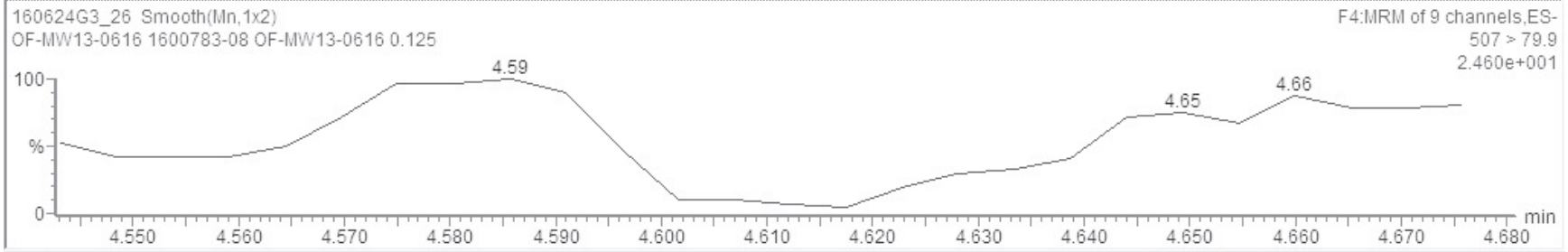
TargetLynx - 160624G3_26.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_26 - 1600783-08 OF-MW13-0616 0.125 - OF-MW13-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	86.362190	0.0495	83.4		4.768e3	0.236	3.13	7	13			0.709	25-Jun-16	05:54:00		1600783-08.
8	13C4-PFHpA	79.938557	0.0226	77.2		1.724e4	0.923	3.99	8	13			0.904	25-Jun-16	05:54:00		1600783-08.
9	18O2-PFHxS	90.320898	0.0963	87.2		2.723e3	0.471	4.11	9	14			0.931	25-Jun-16	05:54:00		1600783-08.
10	13C2-PFOA	88.257365	0.0167	85.2		1.673e4	1.088	4.42	10	15			1.000	25-Jun-16	05:54:00		1600783-08.
11	13C8-PFOS	79.897022	0.0319	77.2		4.413e3	1.142	4.83	11	16			1.000	25-Jun-16	05:54:00		1600783-08.
12	13C5-PFNA	84.527186	0.0143	81.6		1.483e4	1.008	4.78	12	17			1.000	25-Jun-16	05:54:00		1600783-08.
13	13C5-PFHxA	103.54539	0.0281	100.0		2.421e4	1.000	3.48	13	13			0.000	25-Jun-16	05:54:00		1600783-08.
14	13C3-PFHxS	103.54539	0.0564	100.0		6.626e3	1.000	4.11	14	14			0.000	25-Jun-16	05:54:00		1600783-08.
15	13C8-PFOA	103.54539	0.0345	100.0		1.804e4	1.000	4.42	15	15			0.000	25-Jun-16	05:54:00		1600783-08.
16	13C4-PFOS	103.54539	0.0192	100.0		5.008e3	1.000	4.83	16	16			0.000	25-Jun-16	05:54:00		1600783-08.
17	13C9-PFNA	103.54539	0.0629	100.0		1.802e4	1.000	4.78	17	17			0.000	25-Jun-16	05:54:00		1600783-08.
18	Total PFBS	76.975190							18	7				25-Jun-16	05:54:00		1600783-08.
19	Total PFHxS	2155.9097							19	9				25-Jun-16	05:54:00		1600783-08.
20	Total PFOA	657.07599							20	10				25-Jun-16	05:54:00		1600783-08.





Ready 160624G3_26 CAP NUM

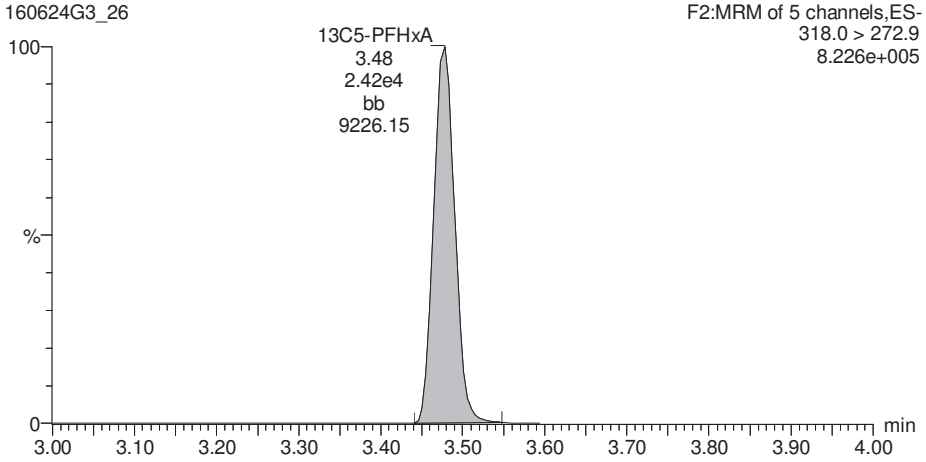
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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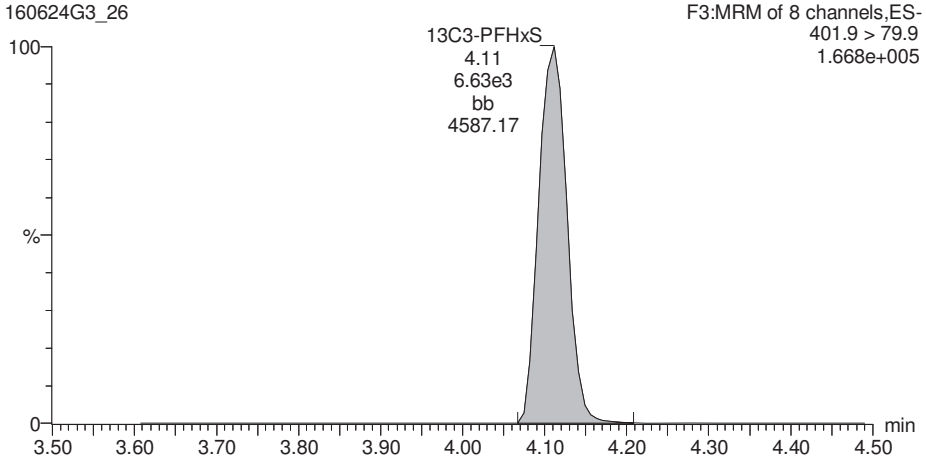
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ID: 1600783-08 OF-MW13-0616 0.125, Description: OF-MW13-0616, Name: 160624G3_26, Date: 25-Jun-2016, Time: 05:54:00, Instrument: , Lab: , User:

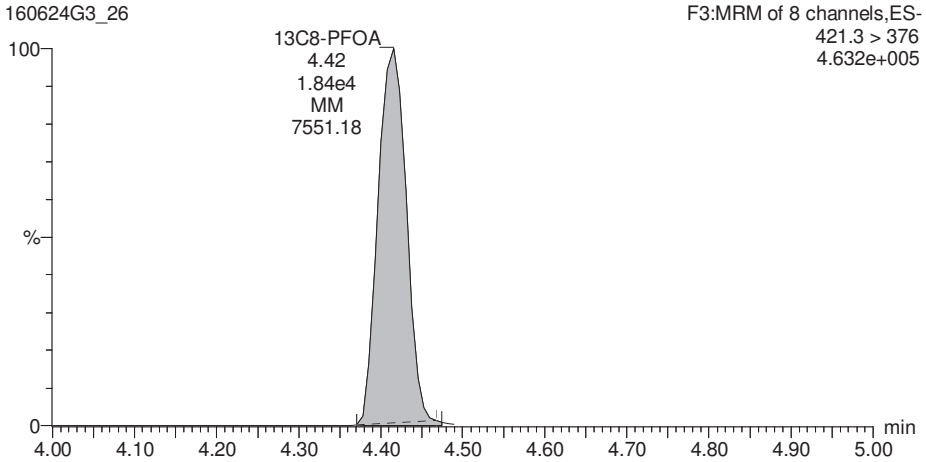
13C5-PFHxA



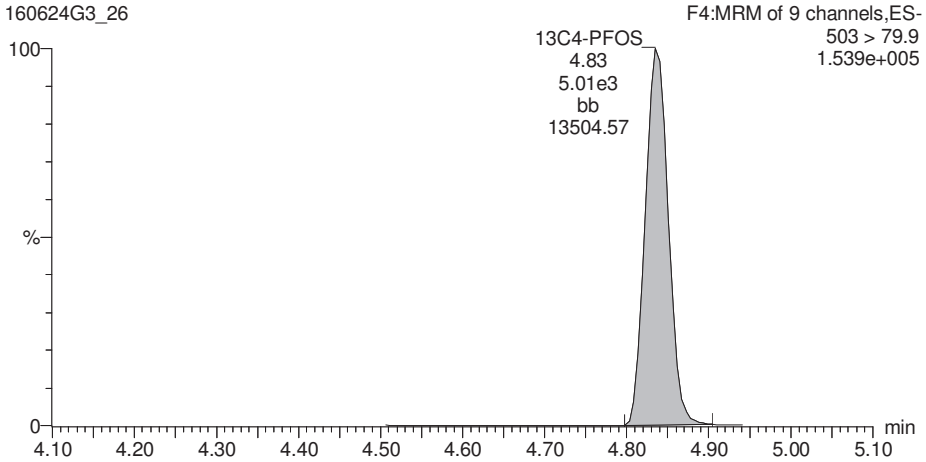
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/30/16

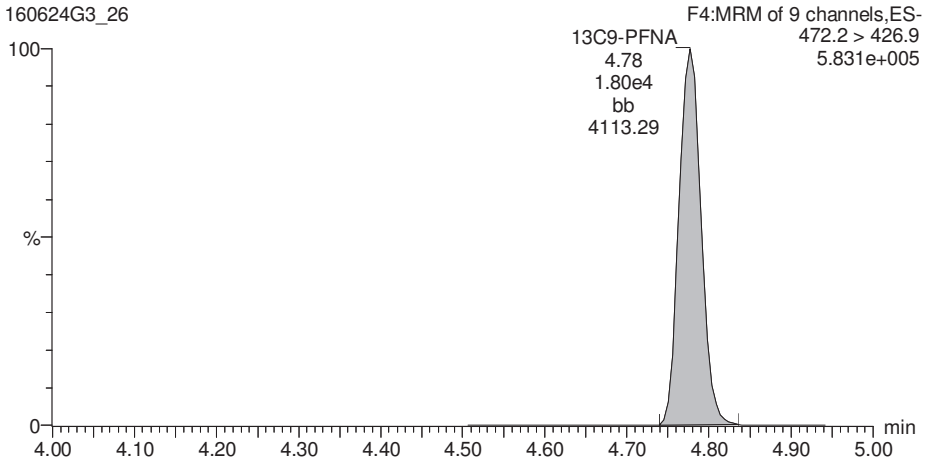
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_26.qld

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ID: 1600783-08 OF-MW13-0616 0.125, Description: OF-MW13-0616, Name: 160624G3_26, Date: 25-Jun-2016, Time: 05:54:00, Instrument: , Lab: , User:

13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_64.qld

Last Altered: Thursday, June 30, 2016 11:59:57 Pacific Daylight Time
Printed: Thursday, June 30, 2016 12:01:46 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_64.wiff, Date: 29-Jun-2016, Time: 04:45:59, ID: 1600783-08@5x, Description: OF-MW13-0616

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3	PFHxS	79.91	4.03e3	3.66e2		0.121	4.47	1.77	
2	5	PFOS	79.92	1.64e4	8.74e2		0.121	5.12	2.84	
3	9	18O2-PFHxS	102.9	3.66e2	1.39e3	0.307	0.121	4.47	0.0890	86.0
4	11	13C8-PFOS	79.93	8.74e2	1.15e3	1.026	0.121	5.12	0.0765	73.9
5	14	13C3-PFHxS	80.0	1.39e3	1.39e3	1.000	0.121	4.46	0.104	100.0
6	16	13C4-PFOS	79.94	1.15e3	1.15e3	1.000	0.121	5.12	0.104	100.0
7	19	Total PFHxS	79.91		3.66e2		0.121		2.09	
8	21	Total PFOS	79.92		8.74e2		0.121		4.09	

Target = ug/L

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_64.qld

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Printed: Thursday, June 30, 2016 12:01:46 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_64.wiff, Date: 29-Jun-2016, Time: 04:45:59, ID: 1600783-08@5x, Description: OF-MW13-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	2.37e2	1.45e3	0.0837
2	18	Total PFBS	79.9	3.34	5.28e0	1.45e3	0.00186

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	4.03e3	3.66e2	1.77
2	19	Total PFHxS	79.91	4.36	5.54e2	3.66e2	0.244
3	19	Total PFHxS	79.91	4.34	1.57e2	3.66e2	0.0693
4	19	Total PFHxS	79.91	4.25	1.11e1	3.66e2	0.00490

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	368.9	4.74	4.82e3	2.23e3	0.527
2	20	Total PFOA	368.9	4.64	1.13e3	2.23e3	0.124

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.12	1.64e4	8.74e2	2.84
2	21	Total PFOS	79.92	5.02	6.85e3	8.74e2	1.19
3	21	Total PFOS	79.92	4.91	4.22e2	8.74e2	0.0731

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q2

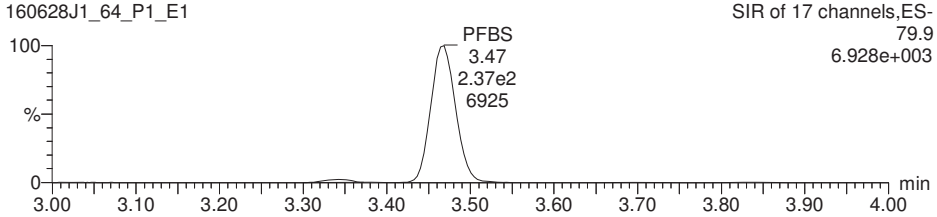
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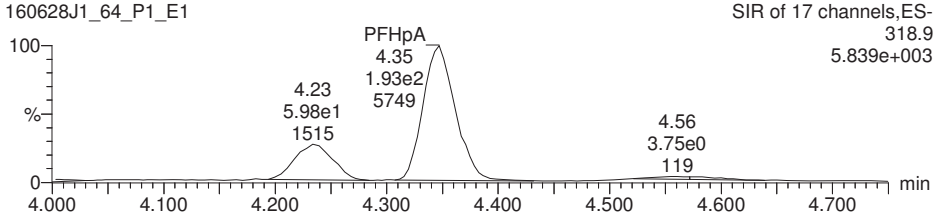
Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_64.wiff, Date: 29-Jun-2016, Time: 04:45:59, ID: 1600783-08@5x, Description: OF-MW13-0616

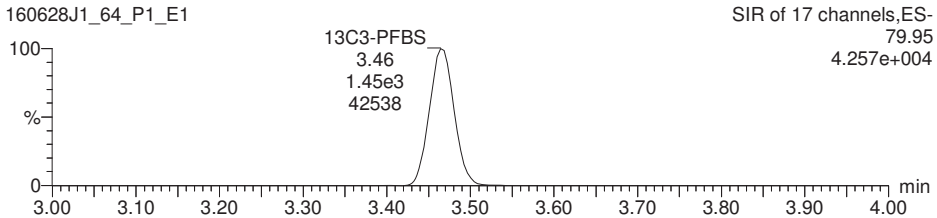
PFBS



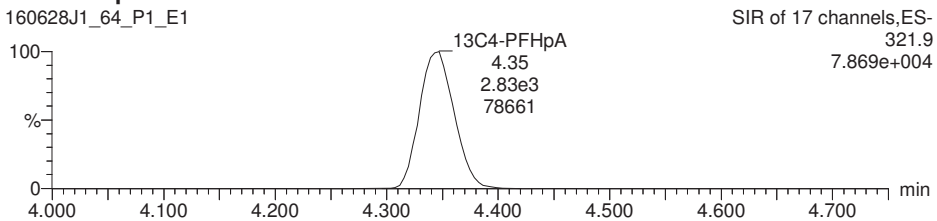
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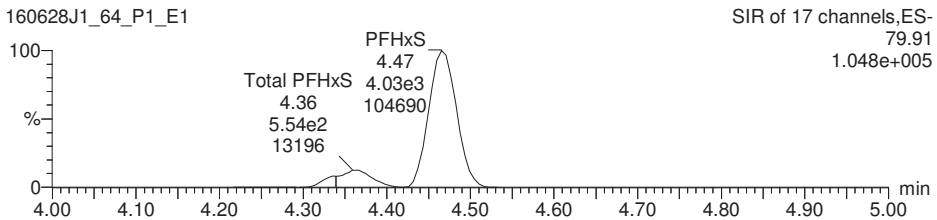
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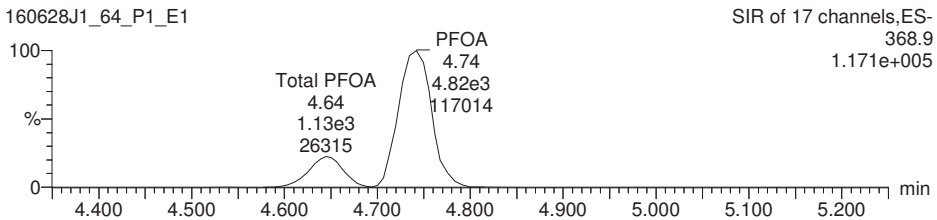
13C4-PFHpA



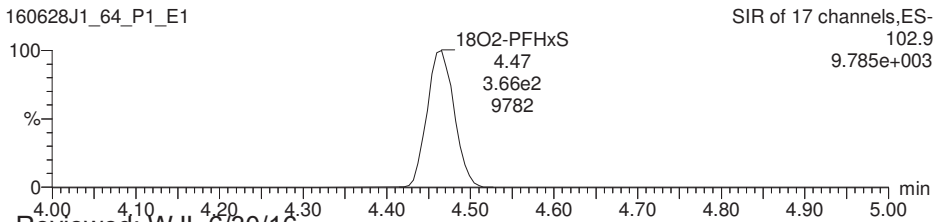
PFHxS



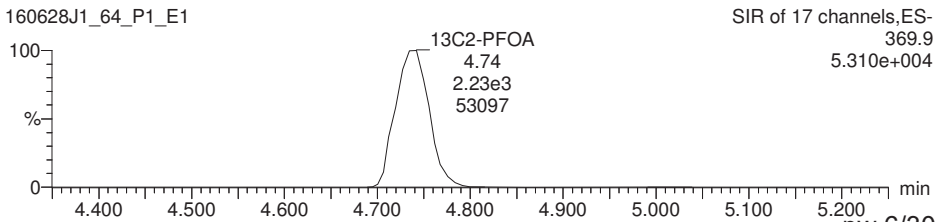
PFOA



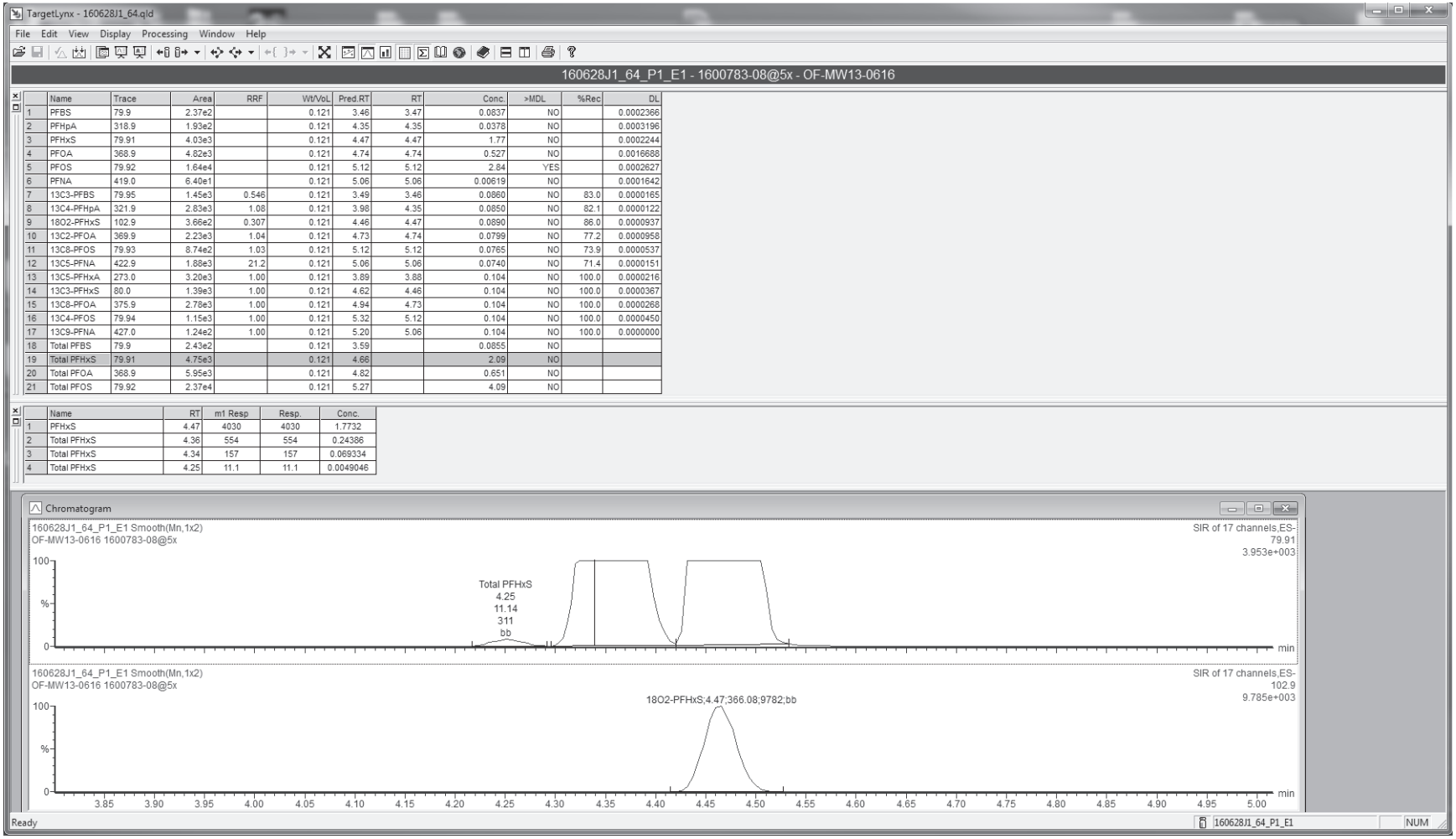
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.37e2		0.121	3.46	3.47	0.0837	NO		0.0002366
2	PFHpA	318.9	1.93e2		0.121	4.35	4.35	0.0378	NO		0.0003196
3	PFHxS	79.91	4.03e3		0.121	4.47	4.47	1.77	NO		0.0002244
4	PFOA	368.9	4.82e3		0.121	4.74	4.74	0.527	NO		0.0016688
5	PFOS	79.92	1.64e4		0.121	5.12	5.12	2.84	YES		0.0002627
6	PFNA	419.0	6.40e1		0.121	5.06	5.06	0.00619	NO		0.0001642
7	13C3-PFBS	79.95	1.45e3	0.546	0.121	3.49	3.46	0.0860	NO	83.0	0.0000165
8	13C4-PFHpA	321.9	2.83e3	1.08	0.121	3.98	4.35	0.0850	NO	82.1	0.0000122
9	18O2-PFHxS	102.9	3.66e2	0.307	0.121	4.46	4.47	0.0890	NO	86.0	0.0000937
10	13C2-PFOA	369.9	2.23e3	1.04	0.121	4.73	4.74	0.0799	NO	77.2	0.0000958
11	13C8-PFOS	79.93	8.74e2	1.03	0.121	5.12	5.12	0.0765	NO	73.9	0.0000537
12	13C5-PFNA	422.9	1.88e3	21.2	0.121	5.06	5.06	0.0740	NO	71.4	0.0000151
13	13C5-PFHxA	273.0	3.20e3	1.00	0.121	3.89	3.88	0.104	NO	100.0	0.0000216
14	13C3-PFHxS	80.0	1.39e3	1.00	0.121	4.62	4.46	0.104	NO	100.0	0.0000367
15	13C8-PFOA	375.9	2.78e3	1.00	0.121	4.94	4.73	0.104	NO	100.0	0.0000268
16	13C4-PFOS	79.94	1.15e3	1.00	0.121	5.32	5.12	0.104	NO	100.0	0.0000450
17	13C9-PFNA	427.0	1.24e2	1.00	0.121	5.20	5.06	0.104	NO	100.0	0.0000000
18	Total PFBS	79.9	2.43e2		0.121	3.59		0.0855	NO		
19	Total PFHxS	79.91	4.75e3		0.121	4.66		2.09	NO		
20	Total PFOA	368.9	5.95e3		0.121	4.82		0.651	NO		
21	Total PFOS	79.92	2.37e4		0.121	5.27		4.09	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	4030	4030	1.7732
2	Total PFHxS	4.36	554	554	0.24386
3	Total PFHxS	4.34	157	157	0.069334
4	Total PFHxS	4.25	11.1	11.1	0.0049046

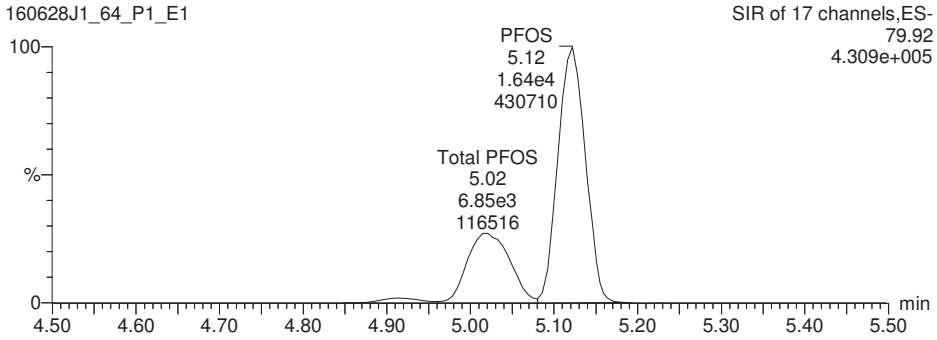
Reviewed: WJL 6/30/16 pw 6/30/16

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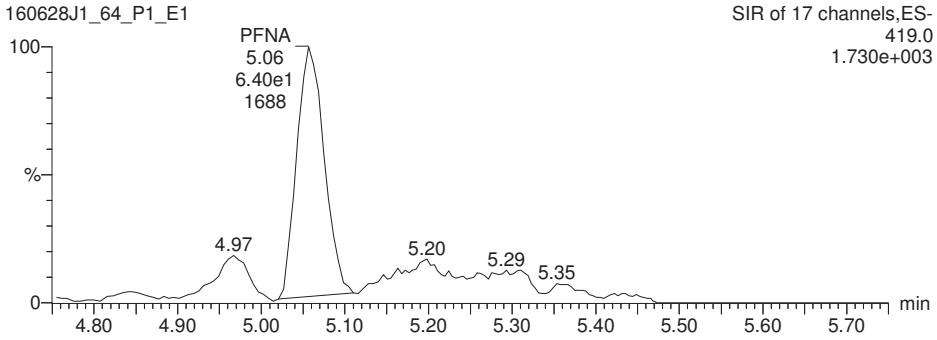
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Printed: Thursday, June 30, 2016 12:01:12 Pacific Daylight Time

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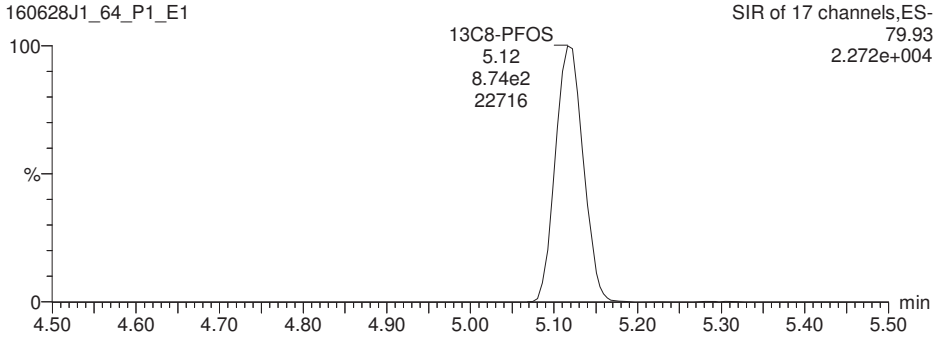
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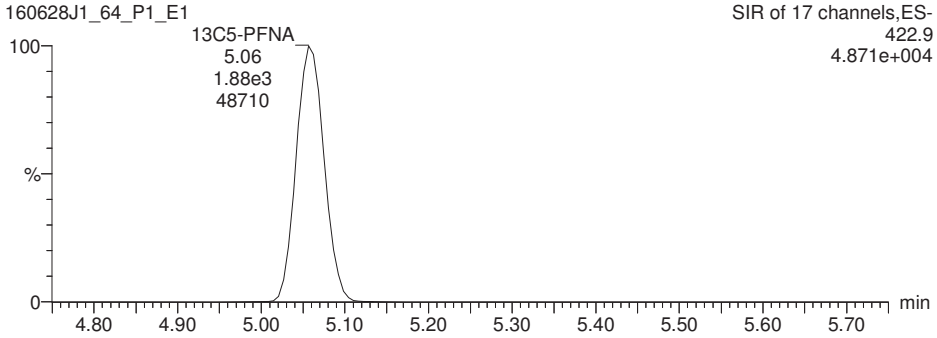
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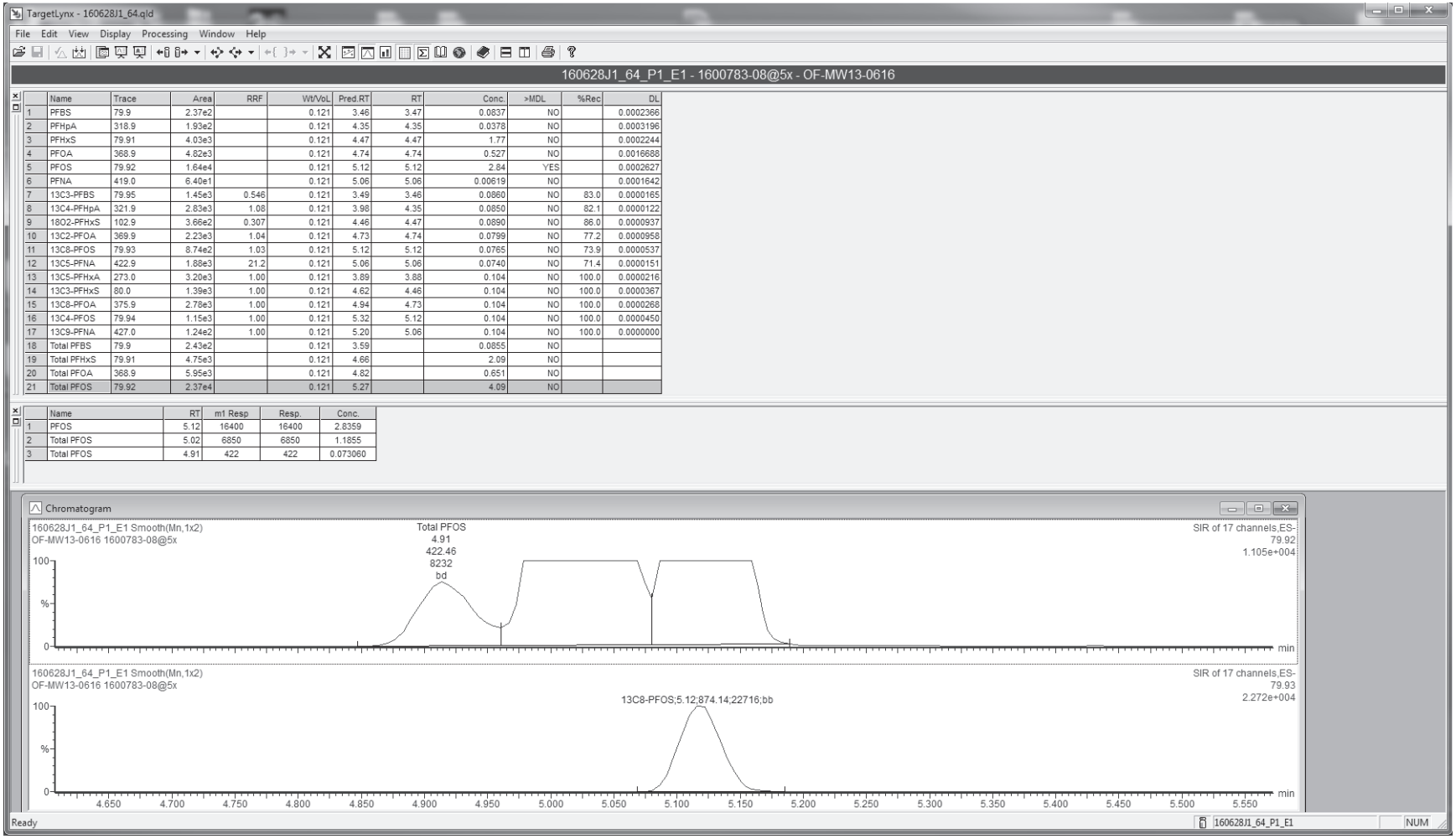
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	2.37e2		0.121	3.46	3.47	0.0837	NO		0.0002366
2	PFHpA	318.9	1.93e2		0.121	4.35	4.35	0.0378	NO		0.0003196
3	PFHxS	79.91	4.03e3		0.121	4.47	4.47	1.77	NO		0.0002244
4	PFOA	368.9	4.82e3		0.121	4.74	4.74	0.527	NO		0.0016688
5	PFOS	79.92	1.64e4		0.121	5.12	5.12	2.84	YES		0.0002627
6	PFNA	419.0	6.40e1		0.121	5.06	5.06	0.00619	NO		0.0001642
7	13C3-PFBS	79.95	1.45e3	0.546	0.121	3.49	3.46	0.0860	NO	83.0	0.0000165
8	13C4-PFHpA	321.9	2.83e3	1.08	0.121	3.98	4.35	0.0850	NO	82.1	0.0000122
9	18O2-PFHxS	102.9	3.66e2	0.307	0.121	4.46	4.47	0.0890	NO	86.0	0.0000937
10	13C2-PFOA	369.9	2.23e3	1.04	0.121	4.73	4.74	0.0799	NO	77.2	0.0000958
11	13C8-PFOS	79.93	8.74e2	1.03	0.121	5.12	5.12	0.0765	NO	73.9	0.0000537
12	13C5-PFNA	422.9	1.88e3	21.2	0.121	5.06	5.06	0.0740	NO	71.4	0.0000151
13	13C5-PFHxA	273.0	3.20e3	1.00	0.121	3.89	3.88	0.104	NO	100.0	0.0000216
14	13C3-PFHxS	80.0	1.39e3	1.00	0.121	4.62	4.46	0.104	NO	100.0	0.0000367
15	13C8-PFOA	375.9	2.78e3	1.00	0.121	4.94	4.73	0.104	NO	100.0	0.0000268
16	13C4-PFOS	79.94	1.15e3	1.00	0.121	5.32	5.12	0.104	NO	100.0	0.0000450
17	13C9-PFNA	427.0	1.24e2	1.00	0.121	5.20	5.06	0.104	NO	100.0	0.0000000
18	Total PFBS	79.9	2.43e2		0.121	3.59		0.0855	NO		
19	Total PFHxS	79.91	4.75e3		0.121	4.66		2.09	NO		
20	Total PFOA	368.9	5.95e3		0.121	4.82		0.651	NO		
21	Total PFOS	79.92	2.37e4		0.121	5.27		4.09	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.12	16400	16400	2.8359
2	Total PFOS	5.02	6850	6850	1.1855
3	Total PFOS	4.91	422	422	0.073060

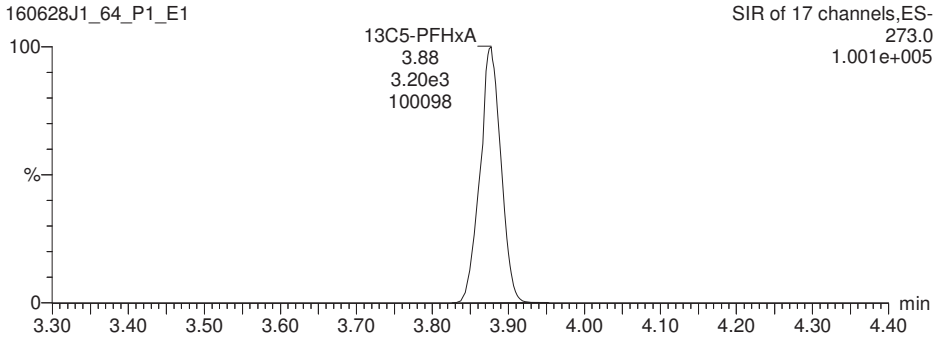
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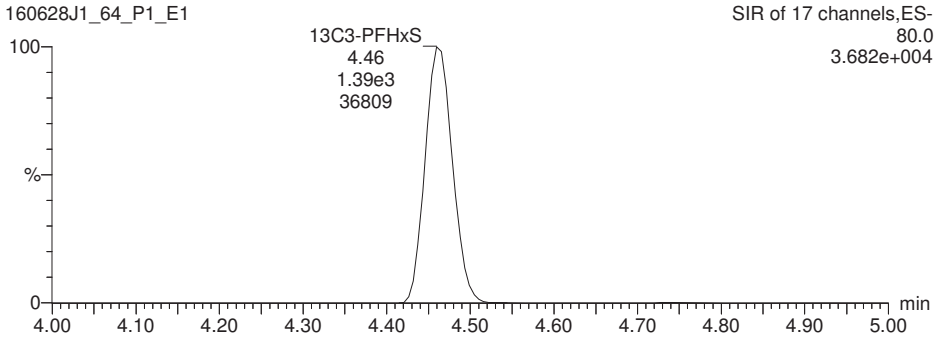
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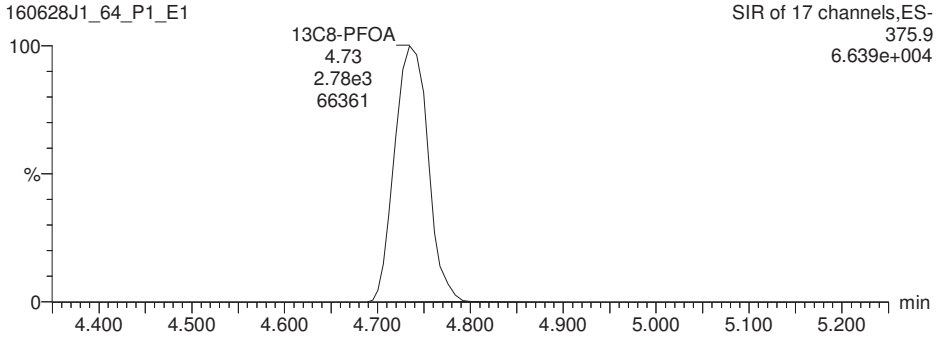
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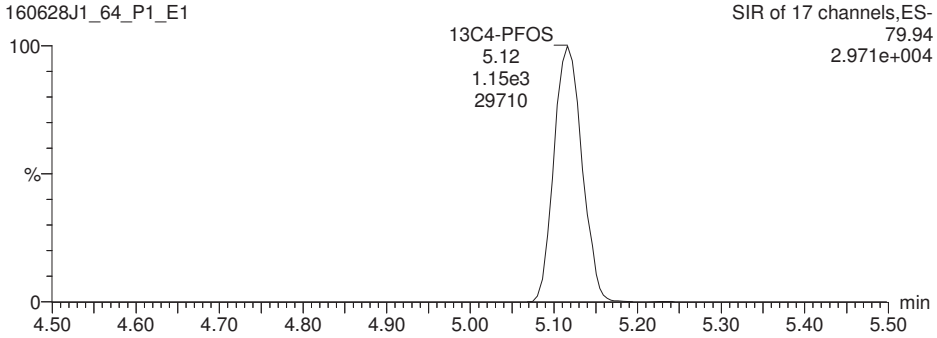
13C3-PFHxS



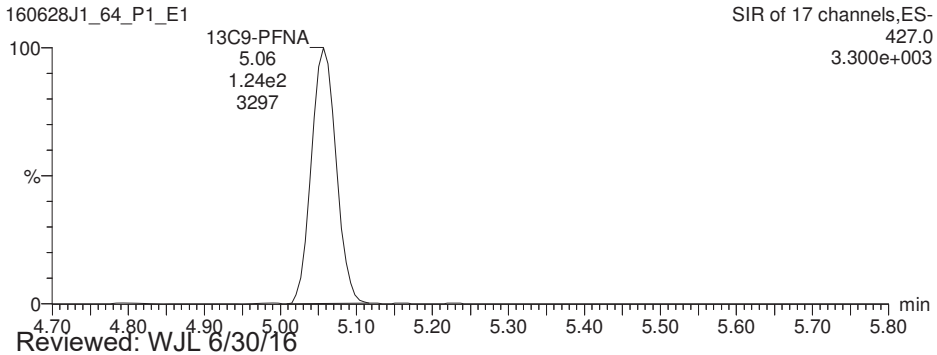
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_27.qld

Last Altered: Thursday, June 30, 2016 07:40:12 Pacific Daylight Time
Printed: Thursday, June 30, 2016 07:40:29 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-09 OF-MW11-0616 0.125, Description: OF-MW11-0616, Name: 160624G3_27, Date: 25-Jun-2016, Time: 06:06:38

	#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.		%Rec
1	1	PFBS	299 > 79.7	4.668e4	3.481e3		0.127	3.13	1390		
2	2	PFHpA	363 > 318.9	6.558e4	1.344e4		0.127	3.99	403		
3	3	PFHxS	398.9 > 79.6	1.093e5	2.008e3		0.127	4.11	4580	E*	
4	4	PFOA	413 > 368.7	4.408e4	1.683e4		0.127	4.42	345		
5	5	PFOS	499 >79.9	4.382e4	4.236e3		0.127	4.84	2090	E*	
6	6	PFNA	463 > 418.8	2.220e3	1.373e4		0.127	4.78	20.5		
7	7	13C3-PFBS	302.0 > 98.8	3.481e3	1.728e4	0.236	0.127	3.13	84.0		85.3
8	8	13C4-PFHpA	367.2 > 321.8	1.344e4	1.728e4	0.923	0.127	3.99	83.0		84.3
9	9	18O2-PFHxS	403 > 102.6	2.008e3	4.530e3	0.471	0.127	4.11	92.6	*	94.1
10	10	13C2-PFOA	414.9 > 369.7	1.683e4	1.843e4	1.088	0.127	4.42	82.6		83.9
11	11	13C8-PFOS	507 > 79.9	4.236e3	4.767e3	1.142	0.127	4.83	76.6	*	77.8
12	12	13C5-PFNA	468.2 > 422.9	1.373e4	1.714e4	1.008	0.127	4.78	78.2		79.4
13	13	13C5-PFHxA	318.0 > 272.9	1.728e4	1.728e4	1.000	0.127	3.47	98.4		100
14	14	13C3-PFHxS	401.9 > 79.9	4.530e3	4.530e3	1.000	0.127	4.11	98.4		100
15	15	13C8-PFOA	421.3 > 376	1.843e4	1.843e4	1.000	0.127	4.42	98.4		100
16	16	13C4-PFOS	503 > 79.9	4.767e3	4.767e3	1.000	0.127	4.84	98.4		100
17	17	13C9-PFNA	472.2 > 426.9	1.714e4	1.714e4	1.000	0.127	4.78	98.4		100
18	18	Total PFBS	299 > 79.7		3.481e3		0.127		1420		
19	19	Total PFHxS	398.9 > 79.6		2.008e3		0.127		6800		
20	20	Total PFOA	413 > 368.7		1.683e4		0.127		418		
21	21	Total PFOS	499 > 79.9		4.236e3		0.127		4700		

*SEE 1:5 DILUTION

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_27.qld

Last Altered: Thursday, June 30, 2016 07:40:12 Pacific Daylight Time
Printed: Thursday, June 30, 2016 07:40:29 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

ID: 1600783-09 OF-MW11-0616 0.125, Description: OF-MW11-0616, Name: 160624G3_27, Date: 25-Jun-2016, Time: 06:06:38

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.13	46677.148	3481.260	1387.9
2	18	Total PFBS	299 > 79.7	3.02	984.575	3481.260	34.0

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	398.9 > 79.6	4.11	109265.953	2007.974	4582.1
2	19	Total PFHxS	398.9 > 79.6	4.01	41426.520	2007.974	2185.2
3	19	Total PFHxS	398.9 > 79.6	3.90	519.618	2007.974	35.7

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	413 > 368.7	4.42	44082.207	16829.344	345.0
2	20	Total PFOA	413 > 368.7	4.31	9179.308	16829.344	71.8
3	20	Total PFOA	413 > 368.7	4.19	184.031	16829.344	1.4

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	499 >79.9	4.84	43820.379	4236.465	2092.5
2	21	Total PFOS	499 >79.9	4.72	49782.617	4236.465	2361.2
3	21	Total PFOS	499 >79.9	4.61	4996.540	4236.465	250.3

Reviewed: WJL 6/30/16 BR 6/30/16

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

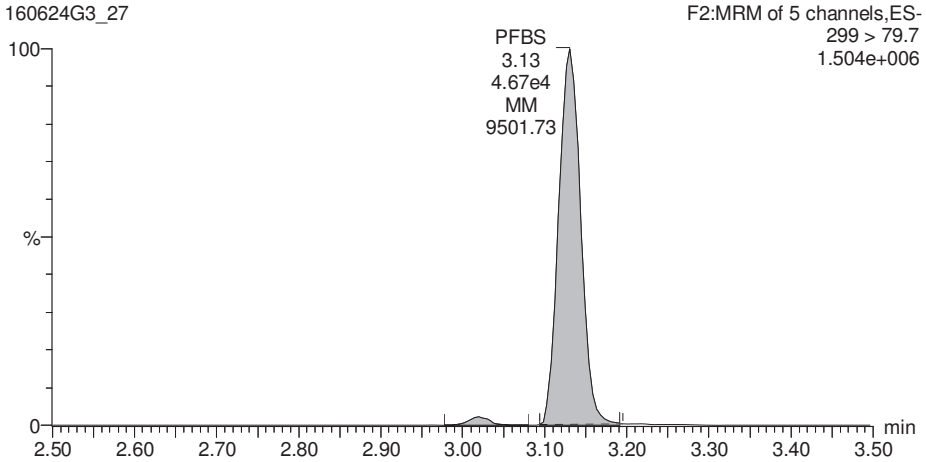
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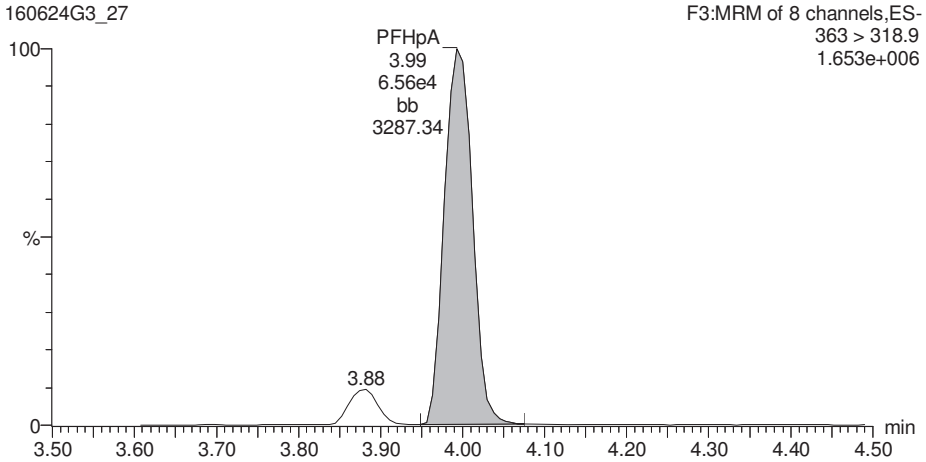
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ID: 1600783-09 OF-MW11-0616 0.125, Description: OF-MW11-0616, Name: 160624G3_27, Date: 25-Jun-2016, Time: 06:06:38, Instrument: , Lab: , User:

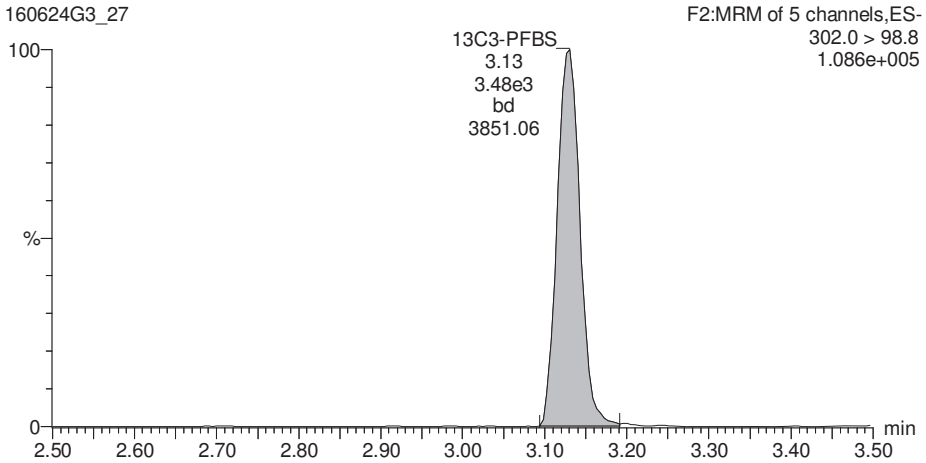
Total PFBS



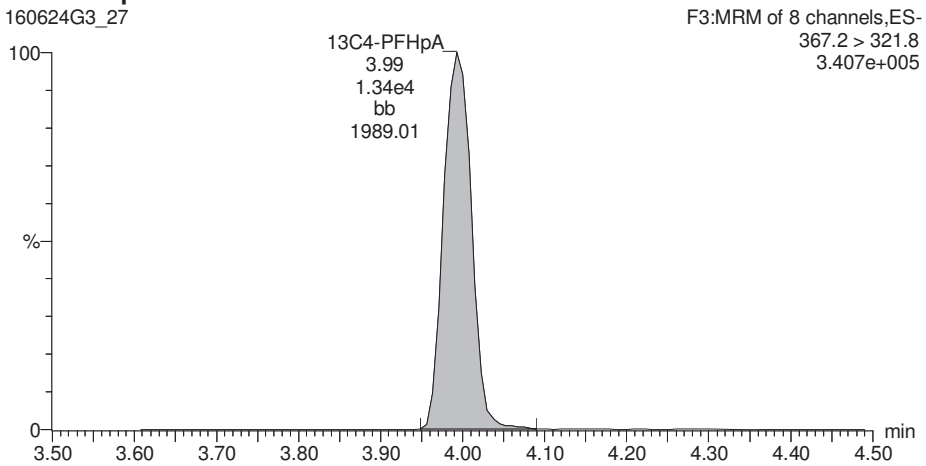
PFHpA



13C3-PFBS



13C4-PFHpA



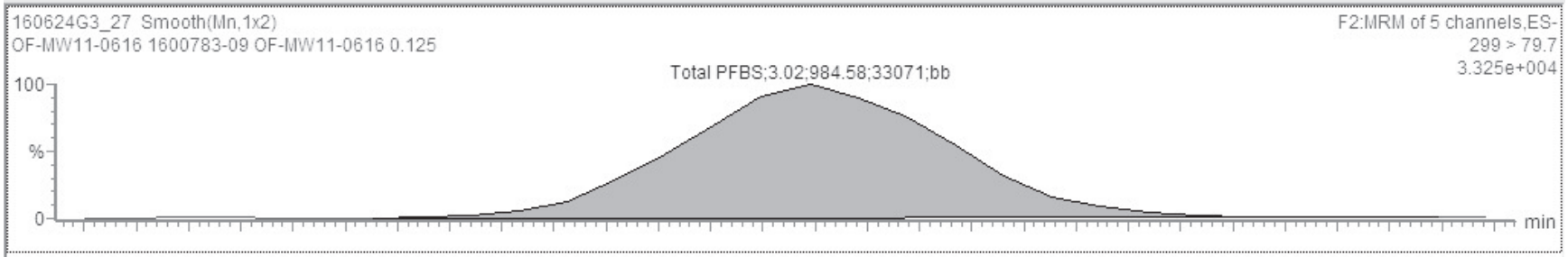
Reviewed: WJL 6/30/16 BR 6/30/16

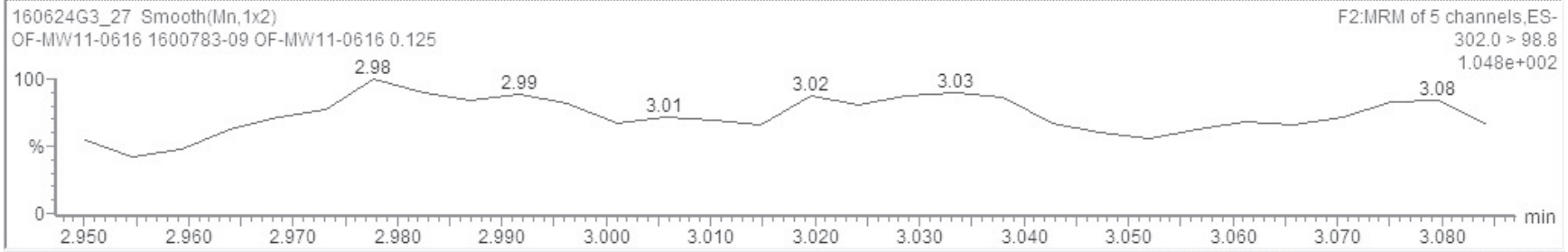
TargetLynx - 160624G3_27.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_27 - 1600783-09 OF-MW11-0616 0.125 - OF-MW11-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	83.988704	0.0549	85.3		3.481e3	0.236	3.13	7	13			0.709	25-Jun-16	06:06:38		1600783-09.
8	13C4-PFHpA	82.957047	0.0853	84.3		1.344e4	0.923	3.99	8	13			0.904	25-Jun-16	06:06:38		1600783-09.
9	18O2-PFHxS	92.308249	0.172	93.8		2.002e3	0.471	4.11	9	14			0.931	25-Jun-16	06:06:38		1600783-09.
10	13C2-PFOA	81.320792	0.0412	82.6		1.657e4	1.088	4.42	10	15			1.000	25-Jun-16	06:06:38		1600783-09.
11	13C8-PFOS	75.830409	0.0246	77.0		4.194e3	1.142	4.83	11	16			0.999	25-Jun-16	06:06:38		1600783-09.
12	13C5-PFNA	78.191496	0.104	79.4		1.373e4	1.008	4.78	12	17			1.001	25-Jun-16	06:06:38		1600783-09.
13	13C5-PFHxA	98.425197	0.0669	100.0		1.728e4	1.000	3.47	13	13			0.000	25-Jun-16	06:06:38		1600783-09.
14	13C3-PFHxS	98.425197	0.231	100.0		4.530e3	1.000	4.11	14	14			0.000	25-Jun-16	06:06:38		1600783-09.
15	13C8-PFOA	98.425197	0.0121	100.0		1.843e4	1.000	4.42	15	15			0.000	25-Jun-16	06:06:38		1600783-09.
16	13C4-PFOS	98.425197	0.145	100.0		4.767e3	1.000	4.84	16	16			0.000	25-Jun-16	06:06:38		1600783-09.
17	13C9-PFNA	98.425197	0.108	100.0		1.714e4	1.000	4.78	17	17			0.000	25-Jun-16	06:06:38		1600783-09.
18	Total PFBS	1421.8742							18	7				25-Jun-16	06:06:38		1600783-09.
19	Total PFHxS	6766.0315							19	9				25-Jun-16	06:06:38		1600783-09.
20	Total PFOA	415.77502							20	10				25-Jun-16	06:06:38		1600783-09.





Ready 160624G3_27 CAP NUM

Reviewed: WJL 6/30/16 BR 6/30/16

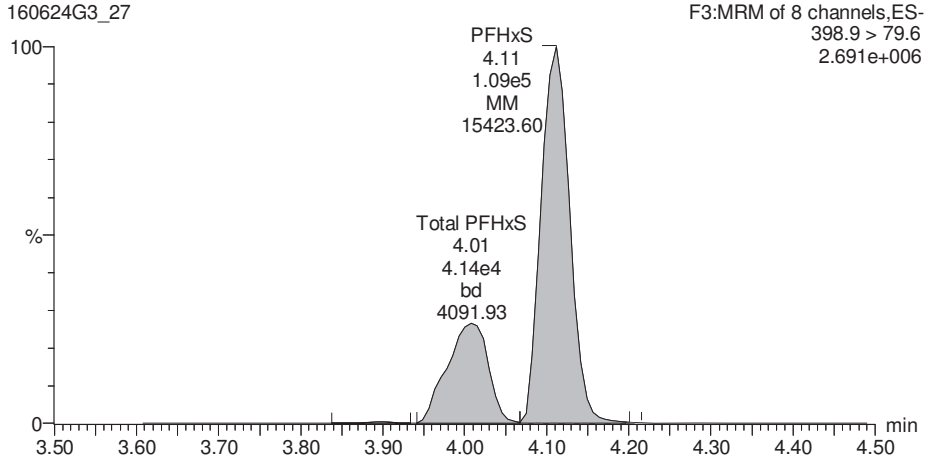
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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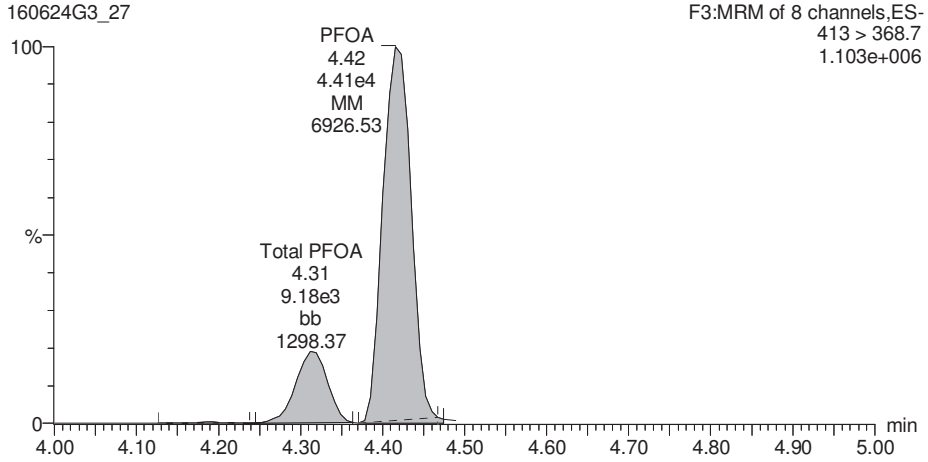
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ID: 1600783-09 OF-MW11-0616 0.125, Description: OF-MW11-0616, Name: 160624G3_27, Date: 25-Jun-2016, Time: 06:06:38, Instrument: , Lab: , User:

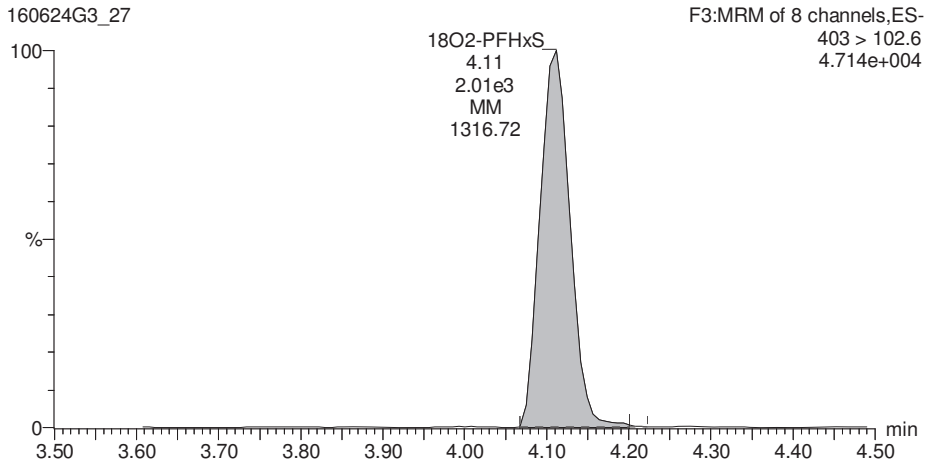
Total PFHxS



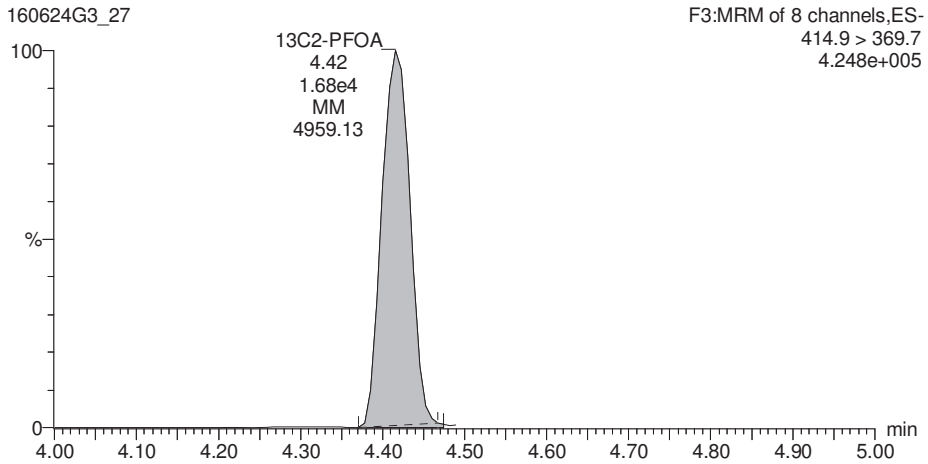
Total PFOA



18O2-PFHxS



13C2-PFOA



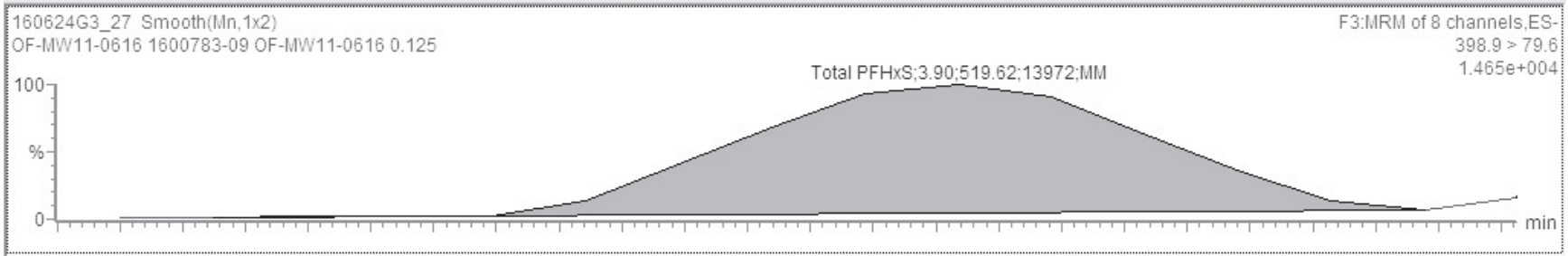
Reviewed: WJL 6/30/16 BR 6/30/16

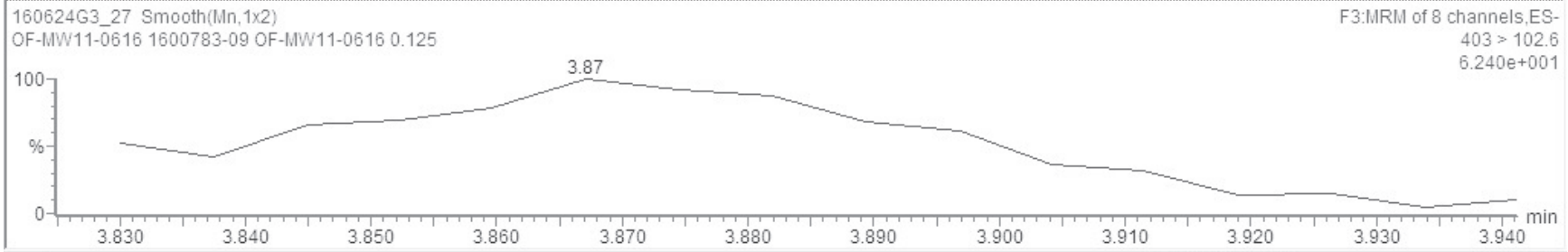
TargetLynx - 160624G3_27.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_27 - 1600783-09 OF-MW11-0616 0.125 - OF-MW11-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	83.988704	0.0549	85.3		3.481e3	0.236	3.13	7	13			0.709	25-Jun-16	06:06:38		1600783-09.
8	13C4-PFHpA	82.957047	0.0853	84.3		1.344e4	0.923	3.99	8	13			0.904	25-Jun-16	06:06:38		1600783-09.
9	18O2-PFHxS	92.604051	0.172	94.1		2.008e3	0.471	4.11	9	14			0.931	25-Jun-16	06:06:38		1600783-09.
10	13C2-PFOA	81.320792	0.0412	82.6		1.657e4	1.088	4.42	10	15			1.000	25-Jun-16	06:06:38		1600783-09.
11	13C8-PFOS	75.830409	0.0246	77.0		4.194e3	1.142	4.83	11	16			0.999	25-Jun-16	06:06:38		1600783-09.
12	13C5-PFNA	78.191496	0.104	79.4		1.373e4	1.008	4.78	12	17			1.001	25-Jun-16	06:06:38		1600783-09.
13	13C5-PFHxA	98.425197	0.0669	100.0		1.728e4	1.000	3.47	13	13			0.000	25-Jun-16	06:06:38		1600783-09.
14	13C3-PFHxS	98.425197	0.231	100.0		4.530e3	1.000	4.11	14	14			0.000	25-Jun-16	06:06:38		1600783-09.
15	13C8-PFOA	98.425197	0.0121	100.0		1.843e4	1.000	4.42	15	15			0.000	25-Jun-16	06:06:38		1600783-09.
16	13C4-PFOS	98.425197	0.145	100.0		4.767e3	1.000	4.84	16	16			0.000	25-Jun-16	06:06:38		1600783-09.
17	13C9-PFNA	98.425197	0.108	100.0		1.714e4	1.000	4.78	17	17			0.000	25-Jun-16	06:06:38		1600783-09.
18	Total PFBS	1421.8742							18	7				25-Jun-16	06:06:38		1600783-09.
19	Total PFHxS	6802.9758							19	9				25-Jun-16	06:06:38		1600783-09.
20	Total PFOA	415.77502							20	10				25-Jun-16	06:06:38		1600783-09.





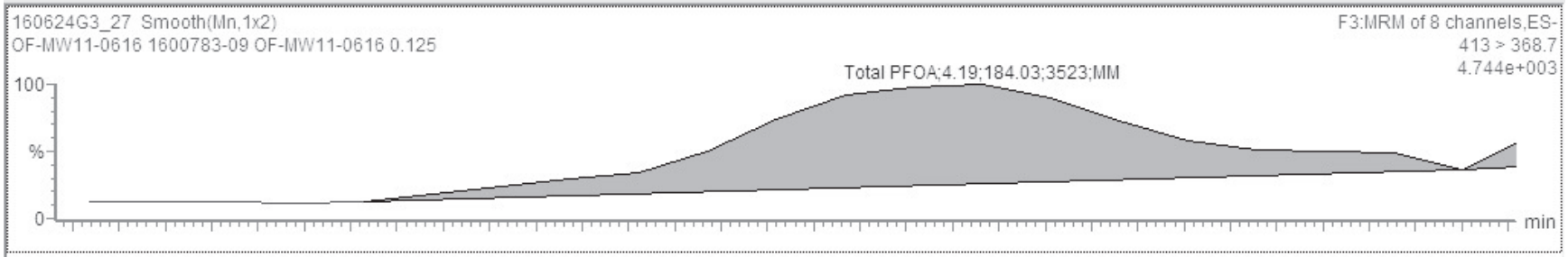
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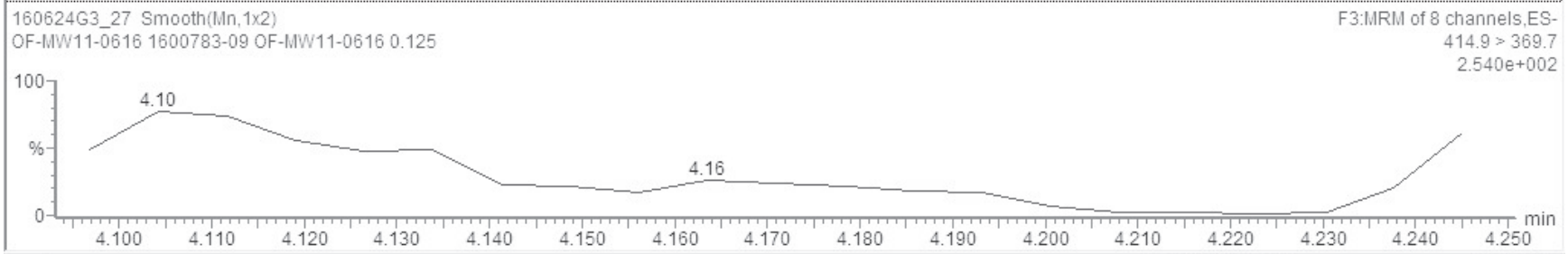
TargetLynx - 160624G3_27.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_27 - 1600783-09 OF-MW11-0616 0.125 - OF-MW11-0616

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID
7	13C3-PFBS	83.988704	0.0549	85.3		3.481e3	0.236	3.13	7	13			0.709	25-Jun-16	06:06:38		1600783-09.
8	13C4-PFHpA	82.957047	0.0853	84.3		1.344e4	0.923	3.99	8	13			0.904	25-Jun-16	06:06:38		1600783-09.
9	18O2-PFHxS	92.604051	0.172	94.1		2.008e3	0.471	4.11	9	14			0.931	25-Jun-16	06:06:38		1600783-09.
10	13C2-PFOA	82.615371	0.0412	83.9		1.683e4	1.088	4.42	10	15			1.000	25-Jun-16	06:06:38		1600783-09.
11	13C8-PFOS	75.830409	0.0246	77.0		4.194e3	1.142	4.83	11	16			0.999	25-Jun-16	06:06:38		1600783-09.
12	13C5-PFNA	78.191496	0.104	79.4		1.373e4	1.008	4.78	12	17			1.001	25-Jun-16	06:06:38		1600783-09.
13	13C5-PFHxA	98.425197	0.0669	100.0		1.728e4	1.000	3.47	13	13			0.000	25-Jun-16	06:06:38		1600783-09.
14	13C3-PFHxS	98.425197	0.231	100.0		4.530e3	1.000	4.11	14	14			0.000	25-Jun-16	06:06:38		1600783-09.
15	13C8-PFOA	98.425197	0.0121	100.0		1.843e4	1.000	4.42	15	15			0.000	25-Jun-16	06:06:38		1600783-09.
16	13C4-PFOS	98.425197	0.145	100.0		4.767e3	1.000	4.84	16	16			0.000	25-Jun-16	06:06:38		1600783-09.
17	13C9-PFNA	98.425197	0.108	100.0		1.714e4	1.000	4.78	17	17			0.000	25-Jun-16	06:06:38		1600783-09.
18	Total PFBS	1421.8742							18	7				25-Jun-16	06:06:38		1600783-09.
19	Total PFHxS	6802.9758							19	9				25-Jun-16	06:06:38		1600783-09.
20	Total PFOA	418.21969							20	10				25-Jun-16	06:06:38		1600783-09.





Ready 160624G3_27 CAP NUM

Reviewed: WJL 6/30/16 BR 6/30/16

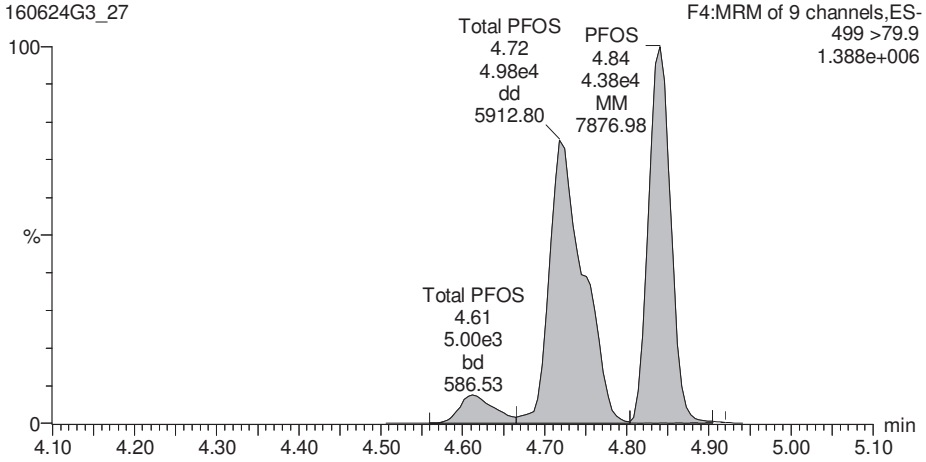
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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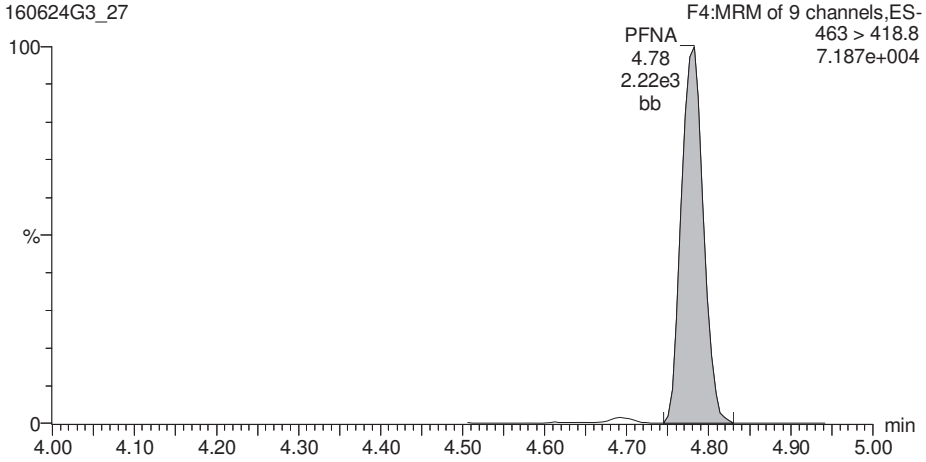
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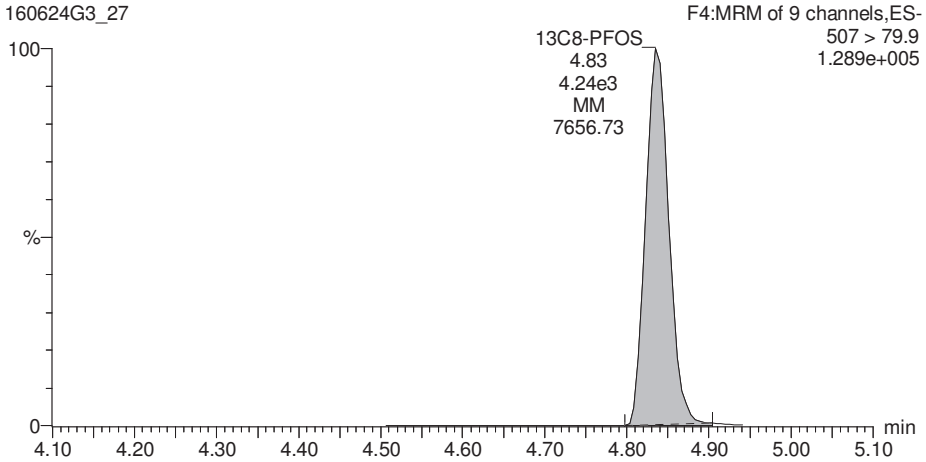
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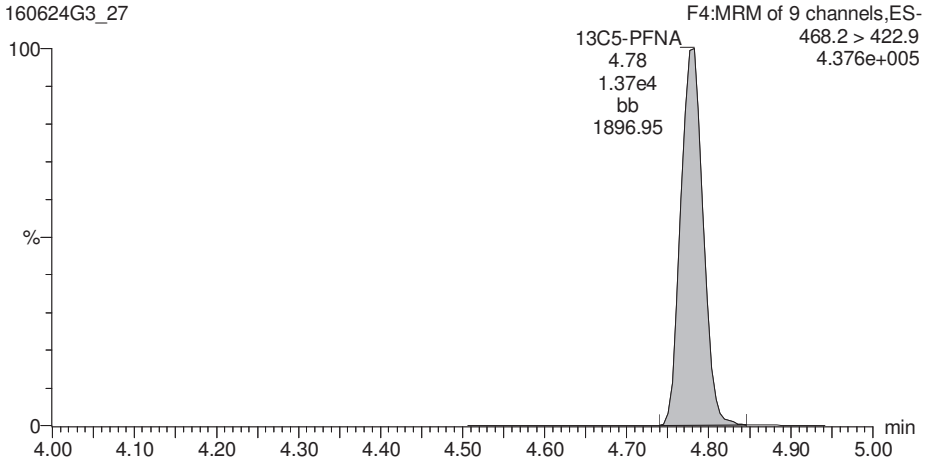
PFNA



13C8-PFOS



13C5-PFNA



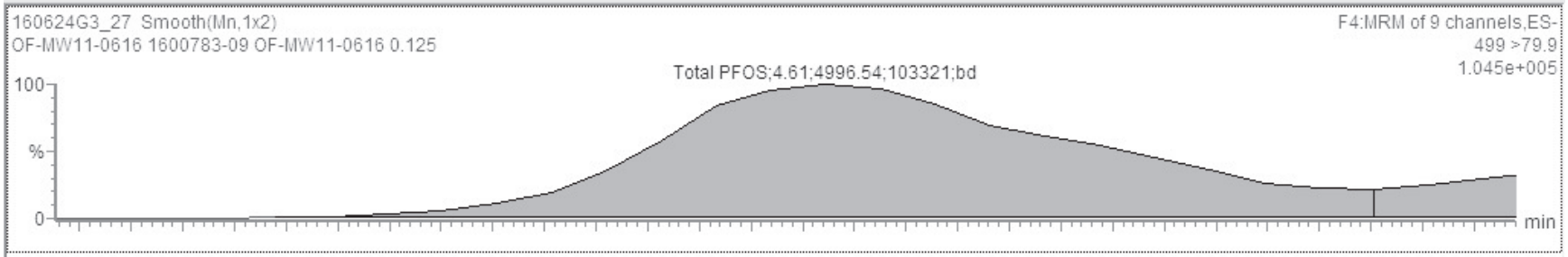
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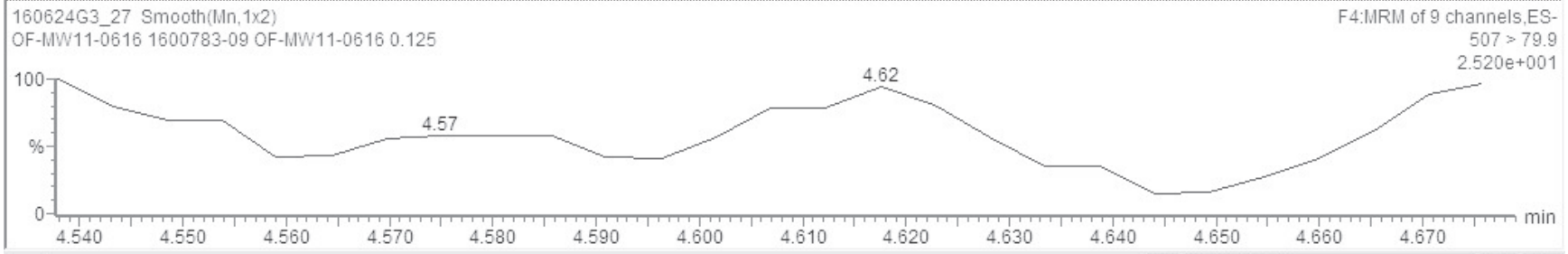
TargetLynx - 160624G3_27.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_27 - 1600783-09 OF-MW11-0616 0.125 - OF-MW11-0616

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7	13C3-PFBS	83.988704	0.0549	85.3		3.481e3	0.236	3.13	7	13			0.709	25-Jun-16	06:06:38		1600783-09.
8	13C4-PFHpA	82.957047	0.0853	84.3		1.344e4	0.923	3.99	8	13			0.904	25-Jun-16	06:06:38		1600783-09.
9	18O2-PFHxS	92.604051	0.172	94.1		2.008e3	0.471	4.11	9	14			0.931	25-Jun-16	06:06:38		1600783-09.
10	13C2-PFOA	82.615371	0.0412	83.9		1.683e4	1.088	4.42	10	15			1.000	25-Jun-16	06:06:38		1600783-09.
11	13C8-PFOS	76.595977	0.0246	77.8		4.236e3	1.142	4.83	11	16			0.999	25-Jun-16	06:06:38		1600783-09.
12	13C5-PFNA	78.191496	0.104	79.4		1.373e4	1.008	4.78	12	17			1.001	25-Jun-16	06:06:38		1600783-09.
13	13C5-PFHxA	98.425197	0.0669	100.0		1.728e4	1.000	3.47	13	13			0.000	25-Jun-16	06:06:38		1600783-09.
14	13C3-PFHxS	98.425197	0.231	100.0		4.530e3	1.000	4.11	14	14			0.000	25-Jun-16	06:06:38		1600783-09.
15	13C8-PFOA	98.425197	0.0121	100.0		1.843e4	1.000	4.42	15	15			0.000	25-Jun-16	06:06:38		1600783-09.
16	13C4-PFOS	98.425197	0.145	100.0		4.767e3	1.000	4.84	16	16			0.000	25-Jun-16	06:06:38		1600783-09.
17	13C9-PFNA	98.425197	0.108	100.0		1.714e4	1.000	4.78	17	17			0.000	25-Jun-16	06:06:38		1600783-09.
18	Total PFBS	1421.8742							18	7				25-Jun-16	06:06:38		1600783-09.
19	Total PFHxS	6802.9758							19	9				25-Jun-16	06:06:38		1600783-09.
20	Total PFOA	418.21969							20	10				25-Jun-16	06:06:38		1600783-09.





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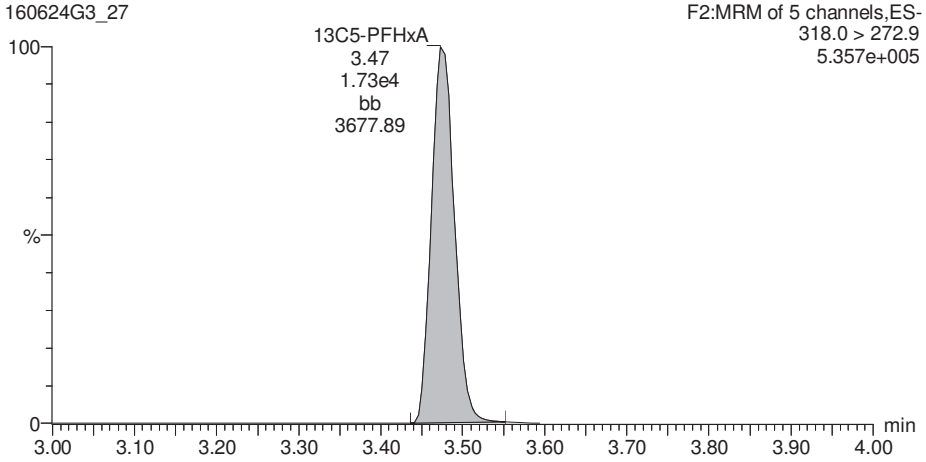
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Vista Analytical Laboratory Q1

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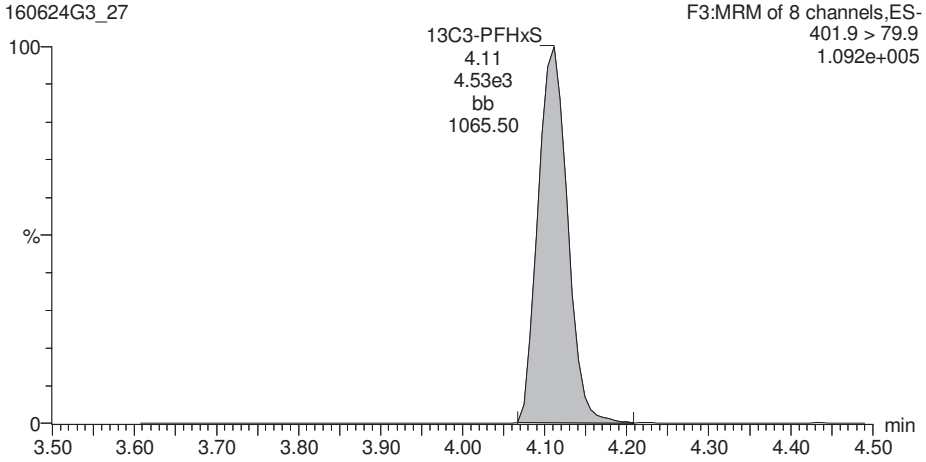
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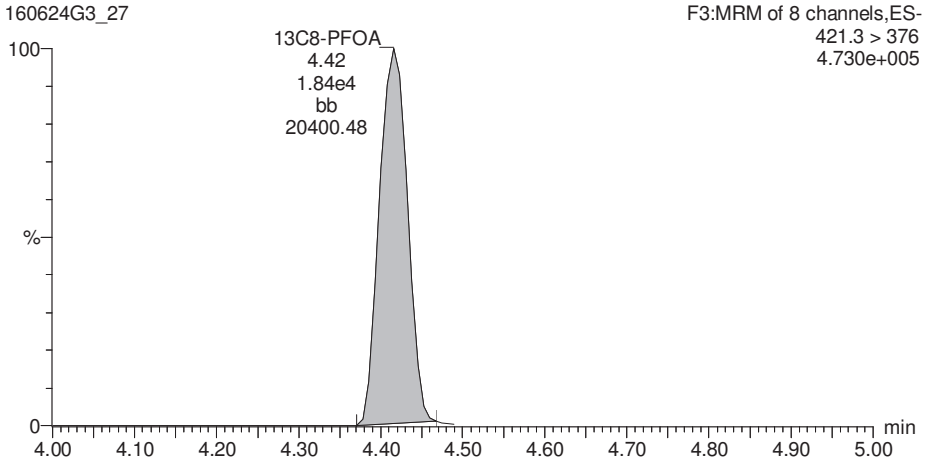
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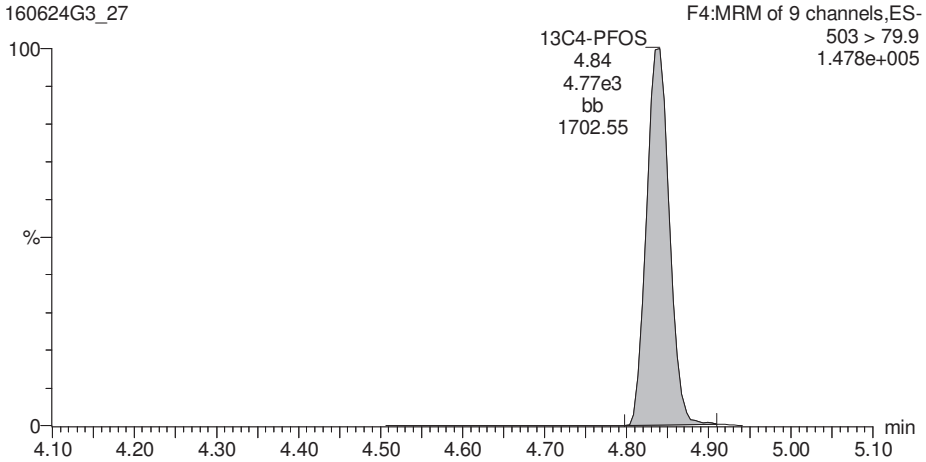
13C3-PFHxS



13C8-PFOA



13C4-PFOS



Reviewed: WJL 6/30/16 BR 6/30/16

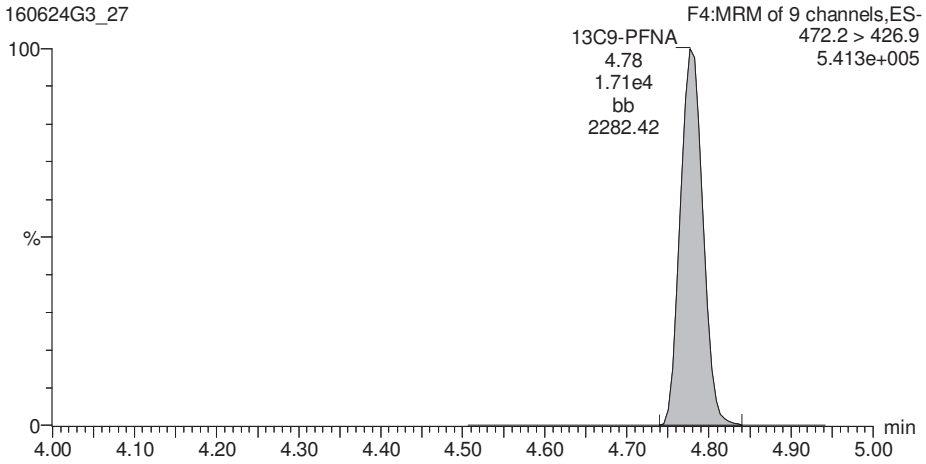
Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory Q1

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13C9-PFNA



Reviewed: WJL 6/30/16 BR 6/30/16

Vista Analytical Laboratory Q1

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_65.wiff, Date: 29-Jun-2016, Time: 04:58:10, ID: 1600783-09@5x, Description: OF-MW11-0616

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3	PFHxS	79.91	1.29e4	3.17e2		0.127	4.47	6.25	
2	5	PFOS	79.92	7.79e3	4.71e2		0.127	5.13	2.38	
3	9	18O2-PFHxS	102.9	3.17e2	1.25e3	0.307	0.127	4.47	0.0815	82.5
4	11	13C8-PFOS	79.93	4.71e2	5.88e2	1.026	0.127	5.13	0.0772	78.2
5	14	13C3-PFHxS	80.0	1.25e3	1.25e3	1.000	0.127	4.47	0.0988	100.0
6	16	13C4-PFOS	79.94	5.88e2	5.88e2	1.000	0.127	5.12	0.0988	100.0
7	19	Total PFHxS	79.91		3.17e2		0.127		7.86	
8	21	Total PFOS	79.92		4.71e2		0.127		5.32	

Target = ug/L

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_65.qld

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Name: 160628J1_65.wiff, Date: 29-Jun-2016, Time: 04:58:10, ID: 1600783-09@5x, Description: OF-MW11-0616

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.47	3.76e3	1.40e3	1.31
2	18	Total PFBS	79.9	3.34	8.57e1	1.40e3	0.0299

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	1.29e4	3.17e2	6.25
2	19	Total PFHxS	79.91	4.37	2.39e3	3.17e2	1.16
3	19	Total PFHxS	79.91	4.34	8.02e2	3.17e2	0.389
4	19	Total PFHxS	79.91	4.26	1.17e2	3.17e2	0.0567

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	368.9	4.65	6.04e2	2.26e3	0.0623
2	4	PFOA	368.9	4.75	2.84e3	2.26e3	0.293

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	7.79e3	4.71e2	2.38
2	21	Total PFOS	79.92	5.02	8.34e3	4.71e2	2.55
3	21	Total PFOS	79.92	4.93	1.24e3	4.71e2	0.380
4	21	Total PFOS	79.92	4.81	1.06e1	4.71e2	0.00323

Reviewed: WJL 6/30/16 pw 6/30/16

Vista Analytical Laboratory Q2

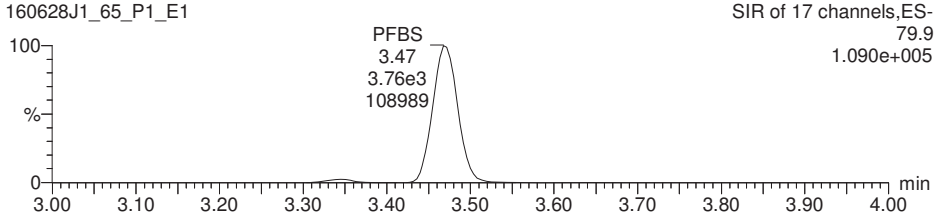
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Printed: Thursday, June 30, 2016 12:07:16 Pacific Daylight Time

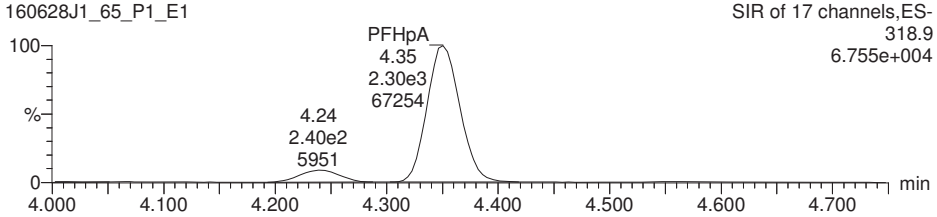
Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_65.wiff, Date: 29-Jun-2016, Time: 04:58:10, ID: 1600783-09@5x, Description: OF-MW11-0616

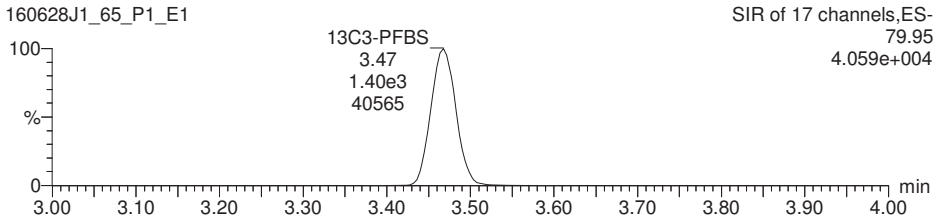
PFBS



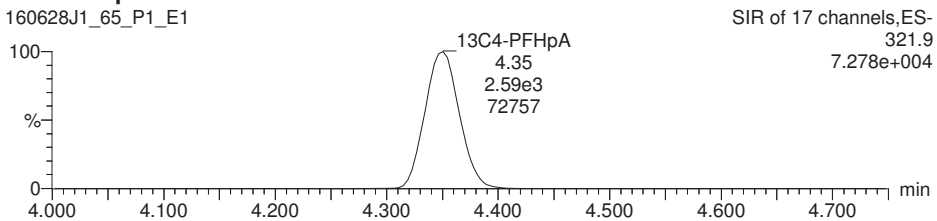
PFHpA



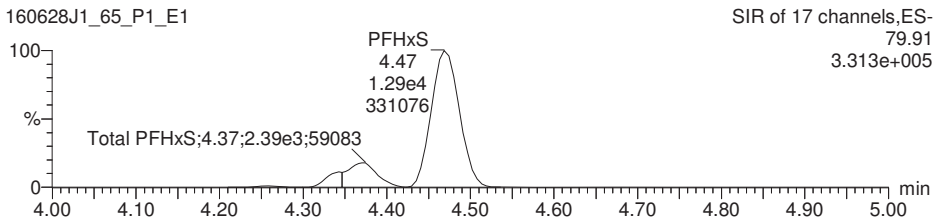
13C3-PFBS



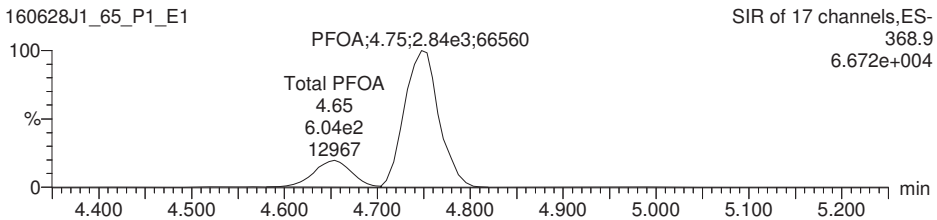
13C4-PFHpA



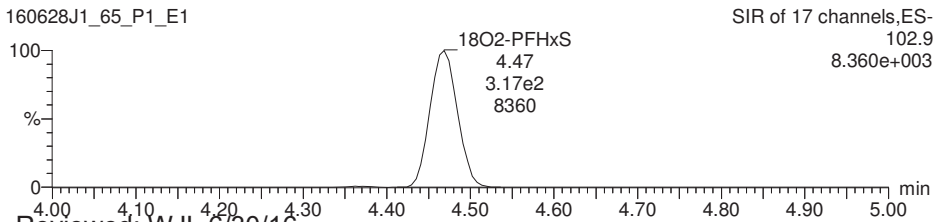
PFHxS



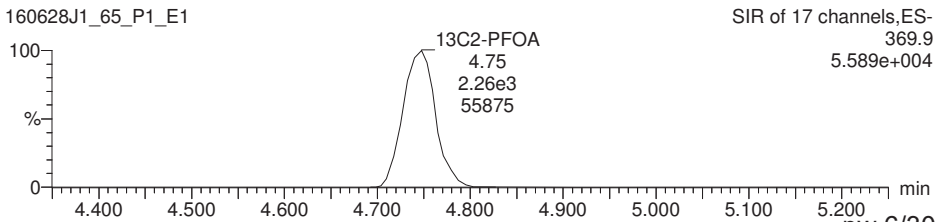
PFOA



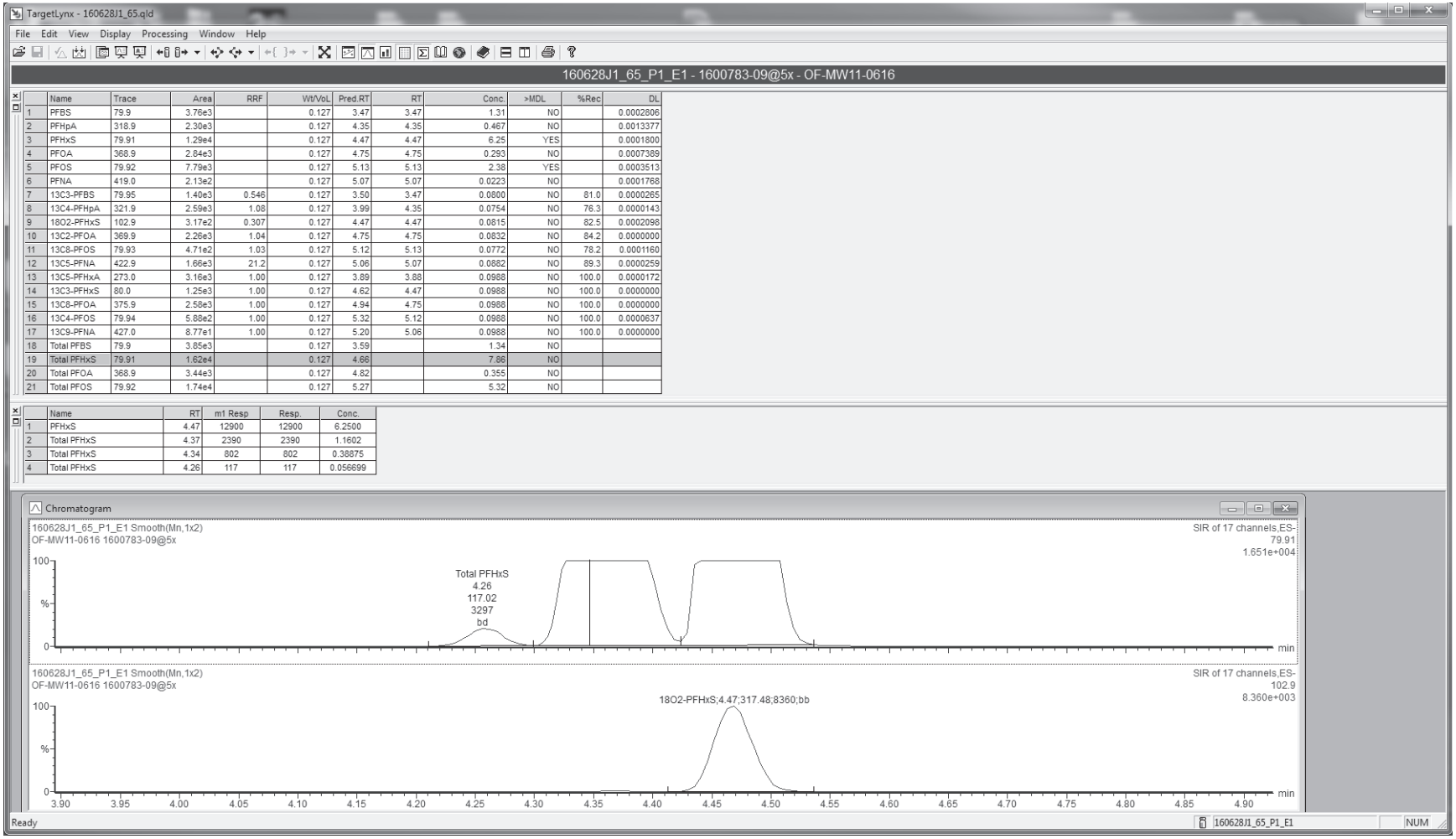
18O2-PFHxS



13C2-PFOA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	3.76e3		0.127	3.47	3.47	1.31	NO		0.0002806
2	PFHpA	318.9	2.30e3		0.127	4.35	4.35	0.467	NO		0.0013377
3	PFHxS	79.91	1.29e4		0.127	4.47	4.47	6.25	YES		0.0001800
4	PFOA	368.9	2.84e3		0.127	4.75	4.75	0.293	NO		0.0007389
5	PFOS	79.92	7.79e3		0.127	5.13	5.13	2.38	YES		0.0003513
6	PFNA	419.0	2.13e2		0.127	5.07	5.07	0.0223	NO		0.0001768
7	13C3-PFBS	79.95	1.40e3	0.546	0.127	3.50	3.47	0.0800	NO	81.0	0.0000265
8	13C4-PFHpA	321.9	2.59e3	1.08	0.127	3.99	4.35	0.0754	NO	76.3	0.0000143
9	18O2-PFHxS	102.9	3.17e2	0.307	0.127	4.47	4.47	0.0815	NO	82.5	0.0002098
10	13C2-PFOA	369.9	2.26e3	1.04	0.127	4.75	4.75	0.0832	NO	84.2	0.0000000
11	13C8-PFOS	79.93	4.71e2	1.03	0.127	5.12	5.13	0.0772	NO	78.2	0.0001160
12	13C5-PFNA	422.9	1.66e3	21.2	0.127	5.06	5.07	0.0882	NO	89.3	0.0000259
13	13C5-PFHxA	273.0	3.16e3	1.00	0.127	3.89	3.88	0.0988	NO	100.0	0.0000172
14	13C3-PFHxS	80.0	1.25e3	1.00	0.127	4.62	4.47	0.0988	NO	100.0	0.0000000
15	13C8-PFOA	375.9	2.58e3	1.00	0.127	4.94	4.75	0.0988	NO	100.0	0.0000000
16	13C4-PFOS	79.94	5.88e2	1.00	0.127	5.32	5.12	0.0988	NO	100.0	0.0000637
17	13C9-PFNA	427.0	8.77e1	1.00	0.127	5.20	5.06	0.0988	NO	100.0	0.0000000
18	Total PFBS	79.9	3.85e3		0.127	3.59		1.34	NO		
19	Total PFHxS	79.91	1.62e4		0.127	4.66		7.86	NO		
20	Total PFOA	368.9	3.44e3		0.127	4.82		0.355	NO		
21	Total PFOS	79.92	1.74e4		0.127	5.27		5.32	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFHxS	4.47	12900	12900	6.2500
2	Total PFHxS	4.37	2390	2390	1.1602
3	Total PFHxS	4.34	802	802	0.38875
4	Total PFHxS	4.26	117	117	0.056699

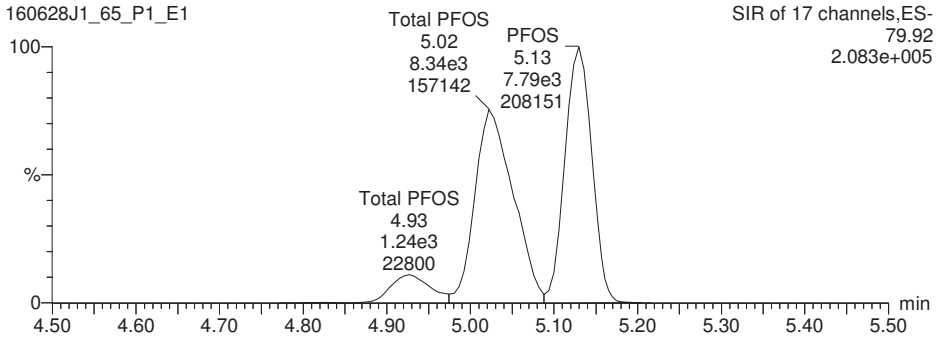
Reviewed: WJL 6/30/16 pw 6/30/16

Dataset: U:\Q2.PRO\Results\160628J1\160628J1_65.qld

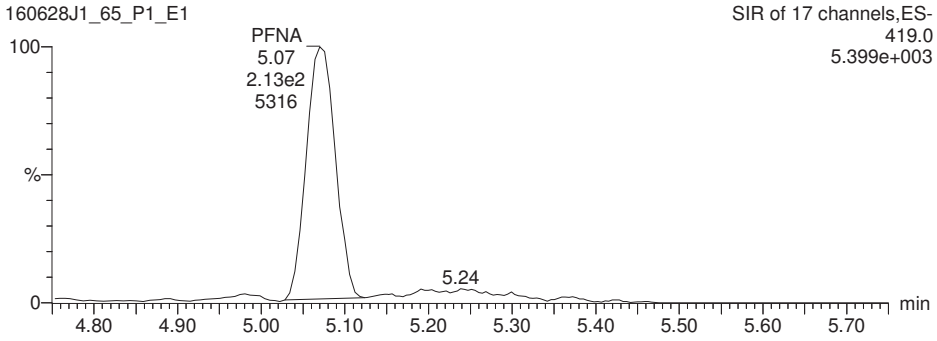
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Printed: Thursday, June 30, 2016 12:07:16 Pacific Daylight Time

Name: 160628J1_65.wiff, Date: 29-Jun-2016, Time: 04:58:10, ID: 1600783-09@5x, Description: OF-MW11-0616

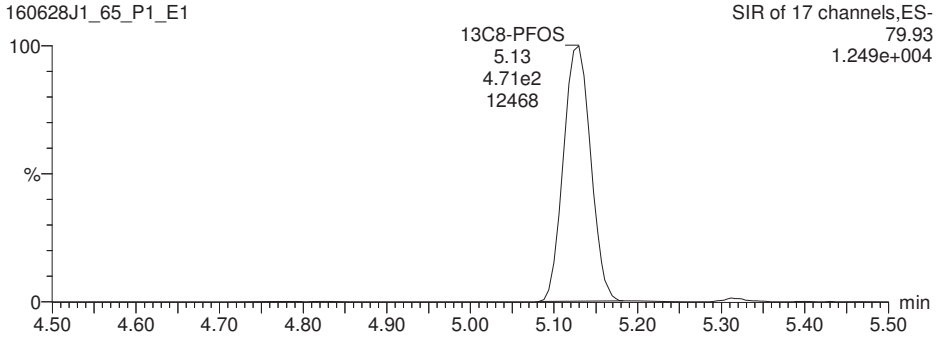
PFOS



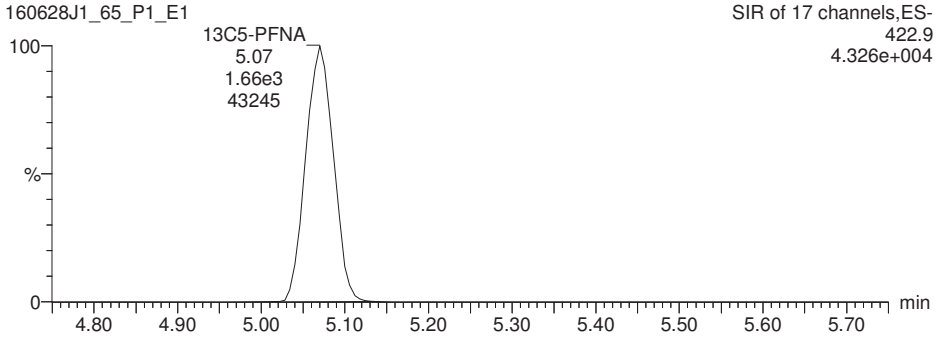
PFNA



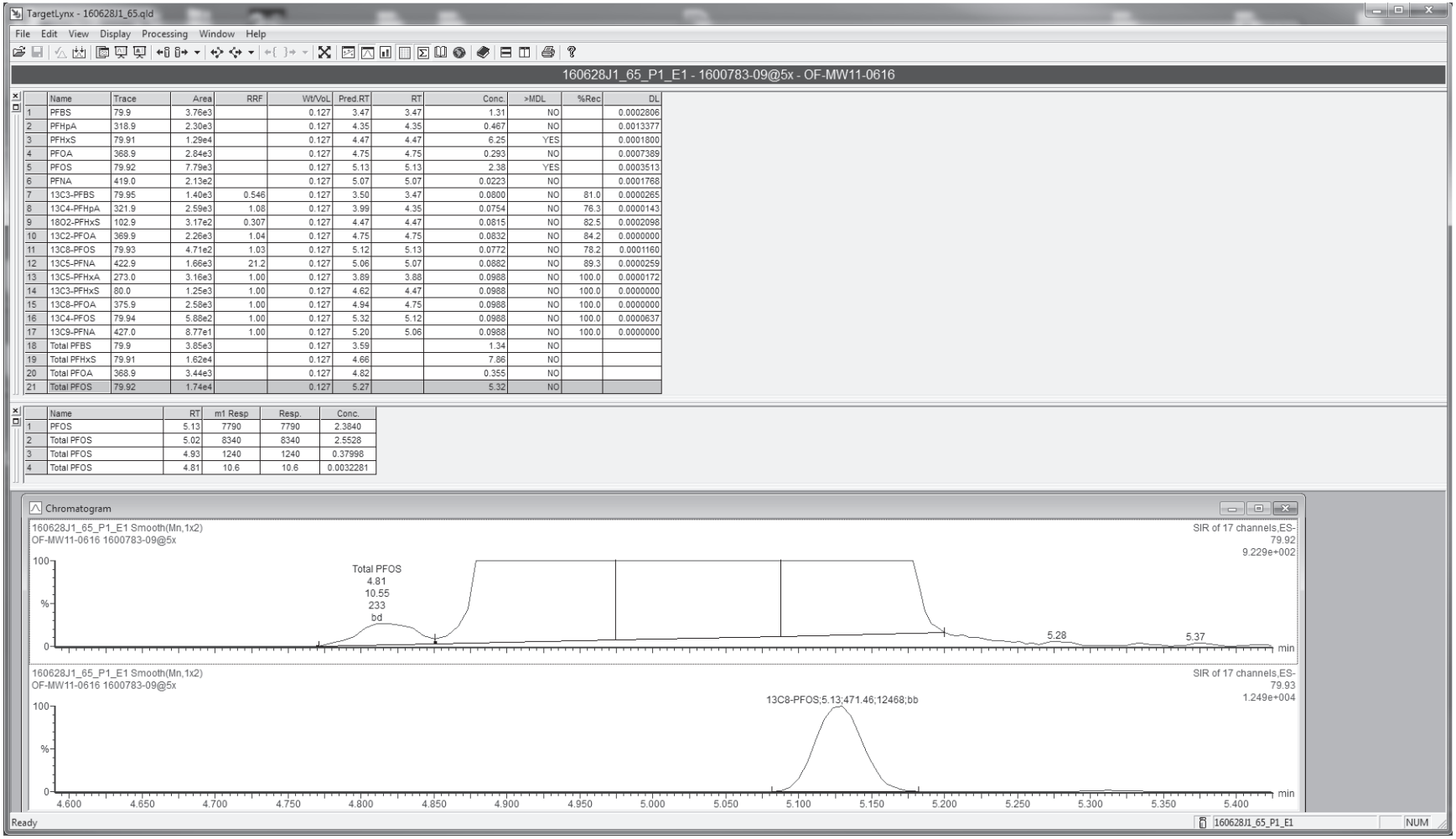
13C8-PFOS



13C5-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16



	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	3.76e3		0.127	3.47	3.47	1.31	NO		0.0002806
2	PFHpA	318.9	2.30e3		0.127	4.35	4.35	0.467	NO		0.0013377
3	PFHxS	79.91	1.29e4		0.127	4.47	4.47	6.25	YES		0.0001800
4	PFOA	368.9	2.84e3		0.127	4.75	4.75	0.293	NO		0.0007389
5	PFOS	79.92	7.79e3		0.127	5.13	5.13	2.38	YES		0.0003513
6	PFNA	419.0	2.13e2		0.127	5.07	5.07	0.0223	NO		0.0001768
7	13C3-PFBS	79.95	1.40e3	0.546	0.127	3.50	3.47	0.0800	NO	81.0	0.0000265
8	13C4-PFHpA	321.9	2.59e3	1.08	0.127	3.99	4.35	0.0754	NO	76.3	0.0000143
9	18O2-PFHxS	102.9	3.17e2	0.307	0.127	4.47	4.47	0.0815	NO	82.5	0.0002098
10	13C2-PFOA	369.9	2.26e3	1.04	0.127	4.75	4.75	0.0832	NO	84.2	0.0000000
11	13C8-PFOS	79.93	4.71e2	1.03	0.127	5.12	5.13	0.0772	NO	78.2	0.0001160
12	13C5-PFNA	422.9	1.66e3	21.2	0.127	5.06	5.07	0.0882	NO	89.3	0.0000259
13	13C5-PFHxA	273.0	3.16e3	1.00	0.127	3.89	3.88	0.0988	NO	100.0	0.0000172
14	13C3-PFHxS	80.0	1.25e3	1.00	0.127	4.62	4.47	0.0988	NO	100.0	0.0000000
15	13C8-PFOA	375.9	2.58e3	1.00	0.127	4.94	4.75	0.0988	NO	100.0	0.0000000
16	13C4-PFOS	79.94	5.88e2	1.00	0.127	5.32	5.12	0.0988	NO	100.0	0.0000637
17	13C9-PFNA	427.0	8.77e1	1.00	0.127	5.20	5.06	0.0988	NO	100.0	0.0000000
18	Total PFBS	79.9	3.85e3		0.127	3.59		1.34	NO		
19	Total PFHxS	79.91	1.62e4		0.127	4.66		7.86	NO		
20	Total PFOA	368.9	3.44e3		0.127	4.82		0.355	NO		
21	Total PFOS	79.92	1.74e4		0.127	5.27		5.32	NO		

	Name	RT	m1 Resp	Resp.	Conc.
1	PFOS	5.13	7790	7790	2.3840
2	Total PFOS	5.02	8340	8340	2.5528
3	Total PFOS	4.93	1240	1240	0.37998
4	Total PFOS	4.81	10.6	10.6	0.0032281

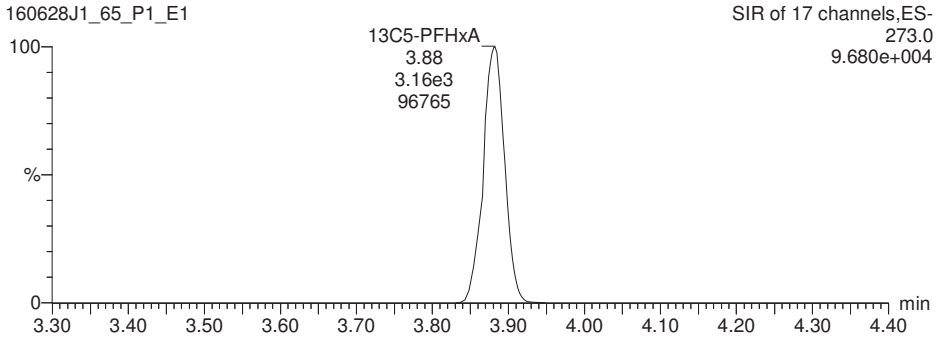
Reviewed: WJL 6/30/16 pw 6/30/16

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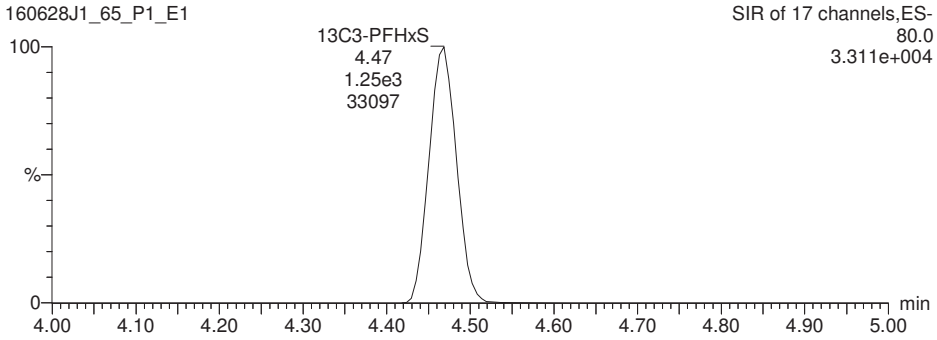
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Printed: Thursday, June 30, 2016 12:07:16 Pacific Daylight Time

Name: 160628J1_65.wiff, Date: 29-Jun-2016, Time: 04:58:10, ID: 1600783-09@5x, Description: OF-MW11-0616

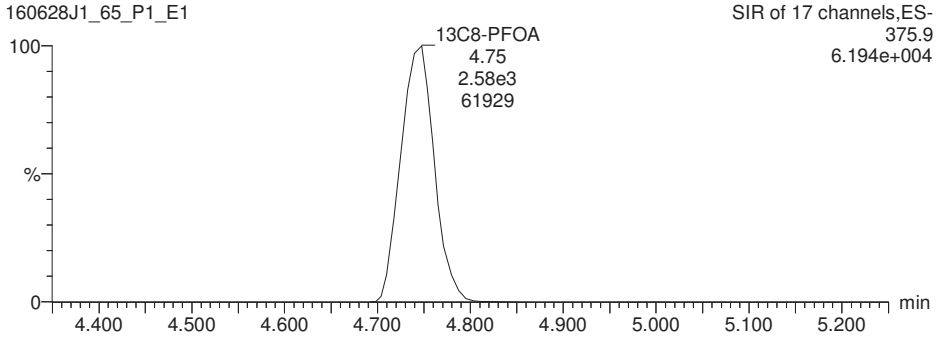
13C5-PFHxA



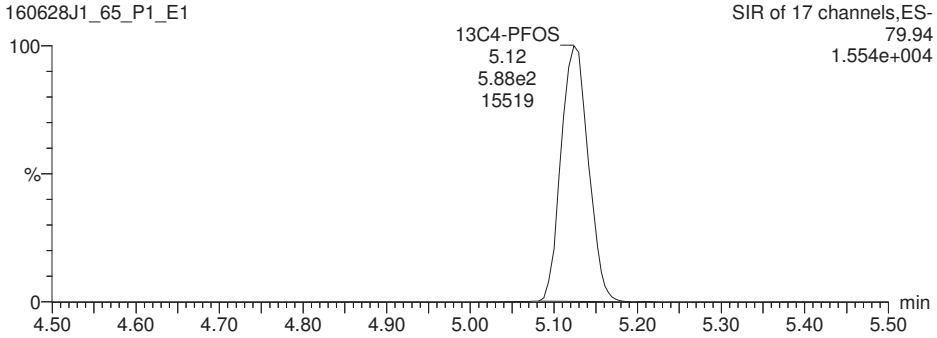
13C3-PFHxS



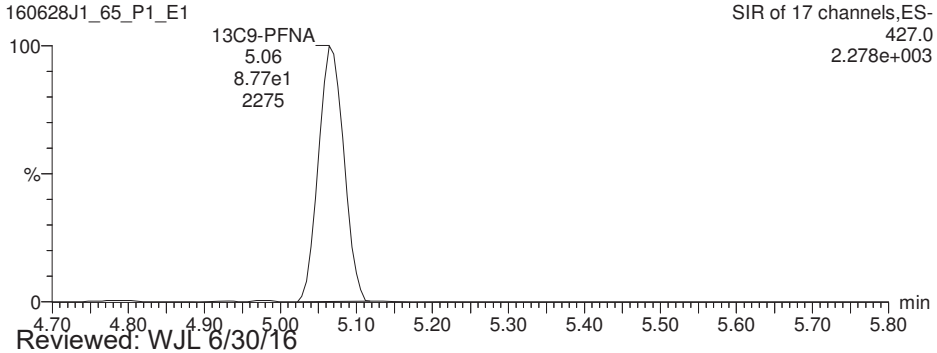
13C8-PFOA



13C4-PFOS



13C9-PFNA



Reviewed: WJL 6/30/16 pw 6/30/16

CONTINUING CALIBRATION

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_29.qld

Last Altered: Monday, June 27, 2016 12:38:15 Pacific Daylight Time
Printed: Monday, June 27, 2016 12:38:33 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Name: 160624G3_29, Date: 25-Jun-2016, Time: 06:31:57, ID: ST160624G3-10 PFC CS3.5 16F2209, Description: PFC CS3.5 16F2209 A

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1	PFBS	299 > 79.7	8.51e3	5.38e3		1.000	3.14	23.7	94.9
2	2	PFHpA	363 > 318.9	4.64e4	2.02e4		1.000	4.00	24.0	96.1
3	3	PFHxS	398.9 > 79.6	6.41e3	4.67e3		1.000	4.12	23.5	94.1
4	4	PFOA	413 > 368.7	3.36e4	2.27e4		1.000	4.42	24.8	99.1
5	5	PFOS	499 >79.9	7.23e3	8.41e3		1.000	4.84	23.2	92.8
6	6	PFNA	463 > 418.8	2.76e4	1.87e4		1.000	4.78	23.6	94.5
7	7	13C3-PFBS	302.0 > 98.8	5.38e3	2.26e4	0.236	1.000	3.14	12.6	101.1
8	8	13C4-PFHpA	367.2 > 321.8	2.02e4	2.26e4	0.923	1.000	4.00	12.1	97.1
9	9	18O2-PFHxS	403 > 102.6	4.67e3	8.40e3	0.471	1.000	4.11	14.8	118.1
10	10	13C2-PFOA	414.9 > 369.7	2.27e4	2.02e4	1.088	1.000	4.42	12.9	103.3
11	11	13C8-PFOS	507 > 79.9	8.41e3	7.48e3	1.142	1.000	4.84	12.3	98.5
12	12	13C5-PFNA	468.2 > 422.9	1.87e4	1.83e4	1.008	1.000	4.78	12.7	101.3
13	13	13C5-PFHxA	318.0 > 272.9	2.26e4	2.26e4	1.000	1.000	3.48	12.5	100.0
14	14	13C3-PFHxS	401.9 > 79.9	8.40e3	8.40e3	1.000	1.000	4.12	12.5	100.0
15	15	13C8-PFOA	421.3 > 376	2.02e4	2.02e4	1.000	1.000	4.42	12.5	100.0
16	16	13C4-PFOS	503 > 79.9	7.48e3	7.48e3	1.000	1.000	4.84	12.5	100.0
17	17	13C9-PFNA	472.2 > 426.9	1.83e4	1.83e4	1.000	1.000	4.78	12.5	100.0

lim
70-130
60-150
NA
60-150
50-150

BR 6/27/16

PW 6/27/16

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Monday, June 27, 2016 11:48:46 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:49:03 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Compound name: PFBS

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1	160624G3_1	IPA	25-Jun-16	00:37:17
2	160624G3_2	ST160624G3-1 PFC CS0 16F2205	25-Jun-16	00:49:56
3	160624G3_3	ST160624G3-2 PFC CS1 16F2206	25-Jun-16	01:02:34
4	160624G3_4	ST160624G3-3 PFC CS2 16F2207	25-Jun-16	01:15:13
5	160624G3_5	ST160624G3-4 PFC CS3 16F2208	25-Jun-16	01:27:53
6	160624G3_6	ST160624G3-5 PFC CS3.5 16F2209	25-Jun-16	01:40:33
7	160624G3_7	ST160624G3-6 PFC CS4 16F2210	25-Jun-16	01:53:14
8	160624G3_8	ST160624G3-7 PFC CS4.5 16F2211	25-Jun-16	02:05:58
9	160624G3_9	ST160624G3-8 PFC CS5 16F2212	25-Jun-16	02:18:37
10	160624G3_10	ST160624G3-9 PFC CS6 16F2213	25-Jun-16	02:31:15
11	160624G3_11	IPA	25-Jun-16	02:43:53
12	160624G3_12	SS160624G3-1 PFC SSS 16F2214	25-Jun-16	02:56:33
13	160624G3_13	IPA	25-Jun-16	03:09:12
14	160624G3_14	B6F0136-BS1 OPR 0.125	25-Jun-16	03:21:53
15	160624G3_15	B6F0136-BSD1 LCS Dup 0.125	25-Jun-16	03:34:33
16	160624G3_16	IPA	25-Jun-16	03:47:14
17	160624G3_17	B6F0136-BLK1 Method Blank 0.125	25-Jun-16	03:59:55
18	160624G3_18	1600779-01RE1 Deicing Truck (420-105908-1...	25-Jun-16	04:12:41
19	160624G3_19	1600783-01 OFPOL-MW-7-0616 0.125	25-Jun-16	04:25:22
20	160624G3_20	1600783-02 OFPOL-MW-4-0616 0.125	25-Jun-16	04:38:00
21	160624G3_21	1600783-03 OFPOL-MW-8-0616 0.125	25-Jun-16	04:50:39
22	160624G3_22	1600783-04 OFPOL-MW-6-0616 0.125	25-Jun-16	05:03:18
23	160624G3_23	1600783-05 OFPOL-MW-3-0616 0.125	25-Jun-16	05:15:58
24	160624G3_24	1600783-06 OFPOL-MW-3P-0616 0.125	25-Jun-16	05:28:38
25	160624G3_25	1600783-07 OFPOL-MW-2-0616 0.125	25-Jun-16	05:41:19
26	160624G3_26	1600783-08 OF-MW13-0616 0.125	25-Jun-16	05:54:00
27	160624G3_27	1600783-09 OF-MW11-0616 0.125	25-Jun-16	06:06:38
28	160624G3_28	IPA	25-Jun-16	06:19:16
29	160624G3_29	ST160624G3-10 PFC CS3.5 16F2209	25-Jun-16	06:31:57
30	160624G3_30	IPA	25-Jun-16	06:44:38
31	160624G3_31	1600784-01 Field Blank Water 0.125	25-Jun-16	06:57:17

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Monday, June 27, 2016 11:48:46 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:49:03 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	160624G3_32	1600786-01 RW-RES001-062016 0.125	25-Jun-16	07:09:56
33	160624G3_33	IPA	25-Jun-16	07:22:35
34	160624G3_34	ST160624G3-11 PFC CS3.5 16F2209	25-Jun-16	07:35:16
35	160624G3_35	IPA	25-Jun-16	07:47:56

LC Calibration Standards Review Checklist Q1

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manaul Integrations	NA
Calibration ID:	ST16062463-10	L (M) H	NA ☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-11 ↓	L (M) H	☐	☑	☑	☑	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 6/2/16

Comments:

Reviewed By: PW 6/27/16
Initials/Date

Vista Analytical Laboratory Q1

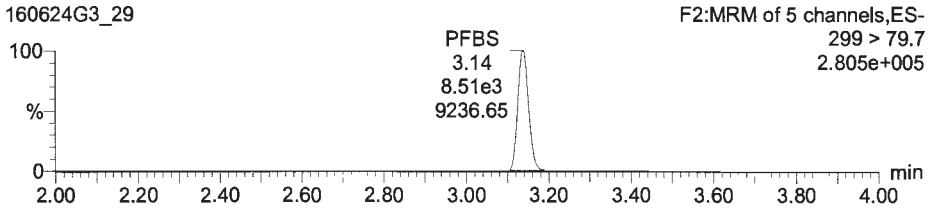
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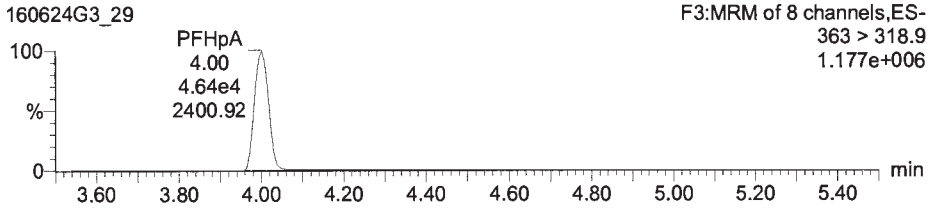
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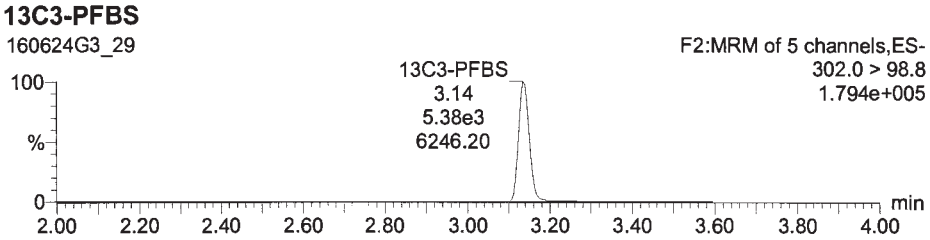
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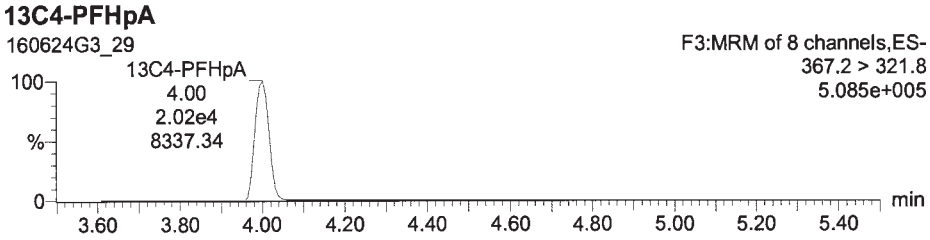
PFHpA



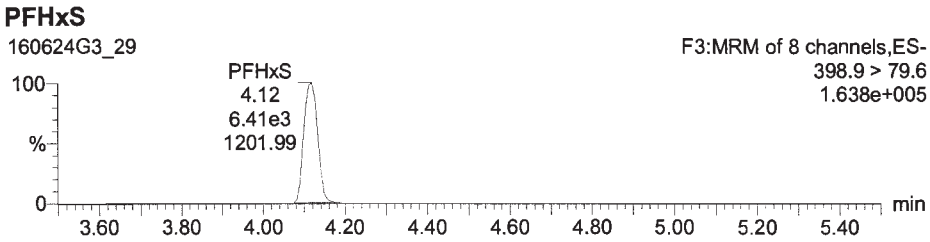
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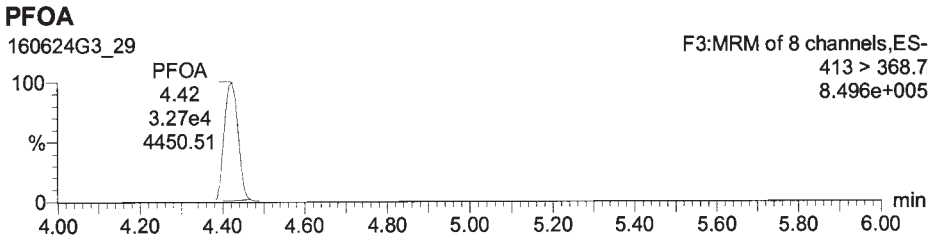
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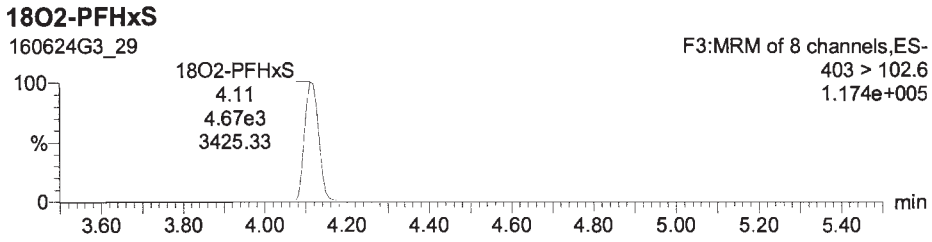
PFHxS



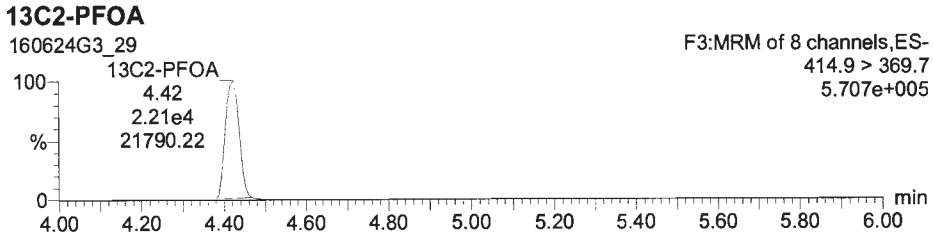
PFOA



18O2-PFHxS



13C2-PFOA

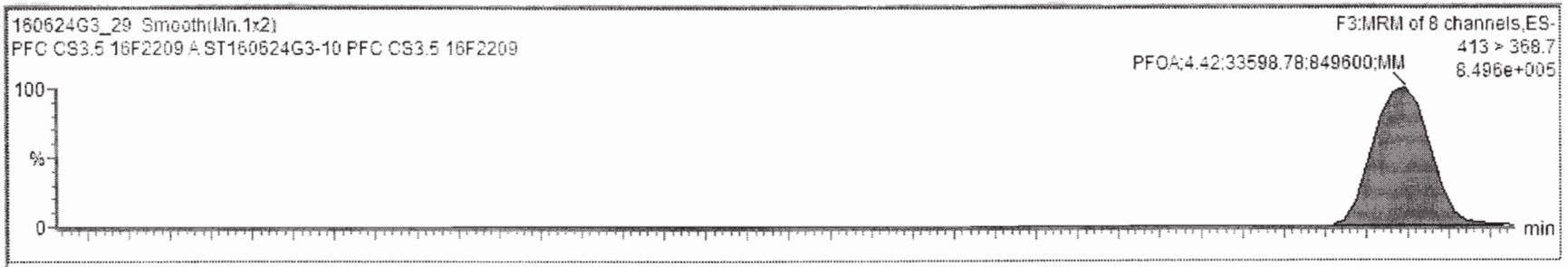


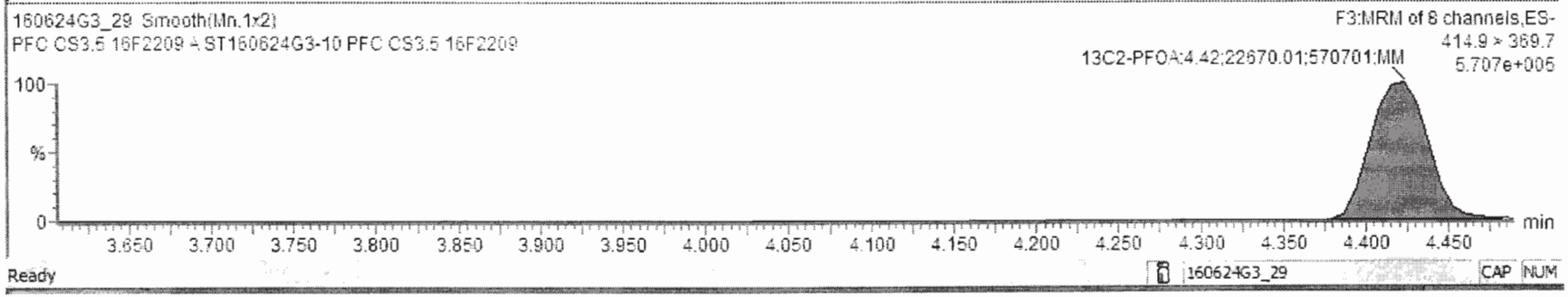
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File Edit View Display Processing Window Help

160624G3_29 - ST160624G3-10 PFC CS3.5 16F2209 - PFC CS3.5 16F2209 A

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	299 > 79.7	8.51e3		1.000	3.14	3.14	23.7	YES	94.9	0.0064886
2	PFHpA	363 > 318.9	4.64e4		1.000	4.00	4.00	24.0	YES	96.1	0.0251756
3	PFHxS	398.9 > 79.6	6.41e3		1.000	4.11	4.12	23.5	YES	94.1	0.0509244
4	PFOA	413 > 368.7	3.36e4		1.000	4.42	4.42	24.8	YES	99.1	0.0138441
5	PFOS	499 >79.9	7.23e3		1.000	4.85	4.84	23.2	YES	92.8	0.0374871
6	PFNA	463 > 418.8	2.76e4		1.000	4.78	4.78	23.6	YES	94.5	0.0358707
7	13C3-PFBS	302.0 > 98.8	5.38e3	0.236	1.000	3.13	3.14	12.6	NO	101.1	0.0049999
8	13C4-PFHpA	367.2 > 321.8	2.02e4	0.923	1.000	4.00	4.00	12.1	NO	97.1	0.0027169
9	18O2-PFHxS	403 > 102.6	4.67e3	0.471	1.000	4.12	4.11	14.8	NO	118.1	0.0106877
10	13C2-PFOA	414.9 > 369.7	2.27e4	1.09	1.000	4.42	4.42	12.9	NO	103.3	0.0014584
11	13C8-PFOS	507 > 79.9	8.41e3	1.14	1.000	4.84	4.84	12.3	NO	98.5	0.0025047
12	13C5-PFNA	468.2 > 422.9	1.87e4	1.01	1.000	4.78	4.78	12.7	NO	101.3	0.0190180
13	13C5-PFHxA	318.0 > 272.9	2.26e4	1.00	1.000	3.53	3.48	12.5	NO	100.0	0.0011840
14	13C3-PFHxS	401.9 > 79.9	8.40e3	1.00	1.000	4.20	4.12	12.5	NO	100.0	0.0121940
15	13C8-PFOA	421.3 > 376	2.02e4	1.00	1.000	4.49	4.42	12.5	NO	100.0	0.0022589





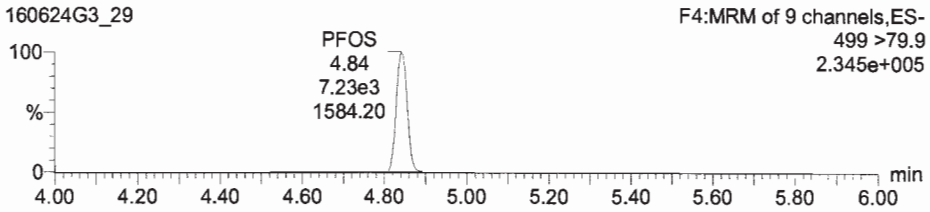
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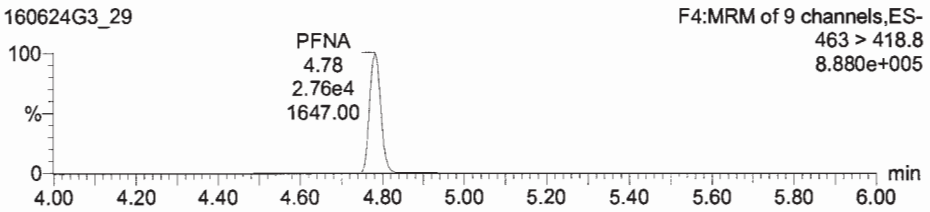
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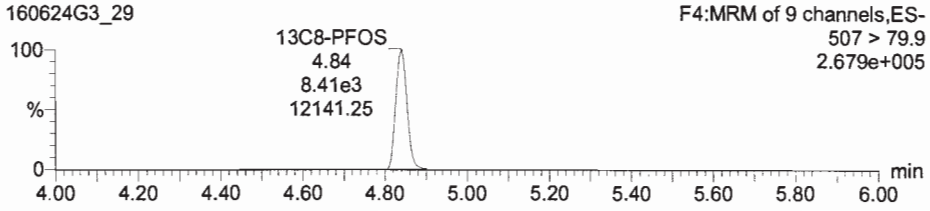
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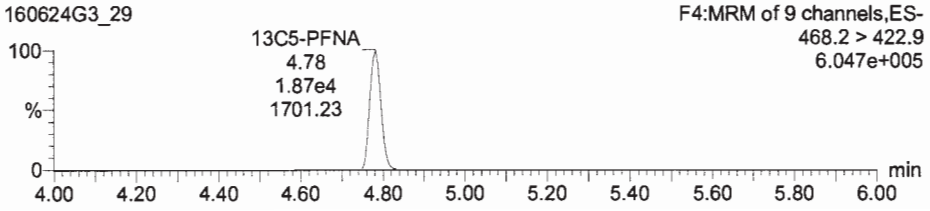
PFNA



13C8-PFOS



13C5-PFNA

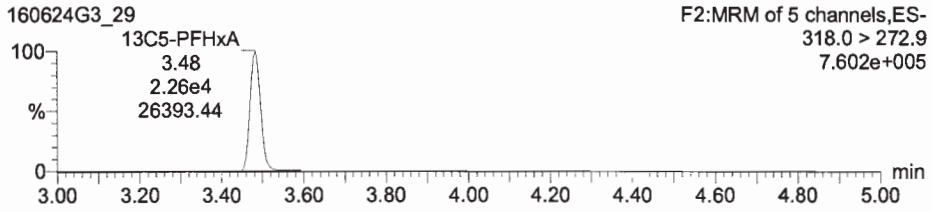


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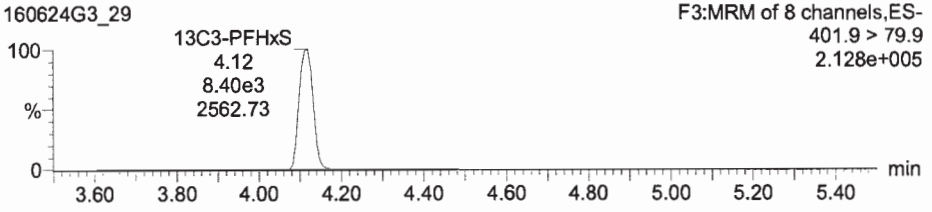
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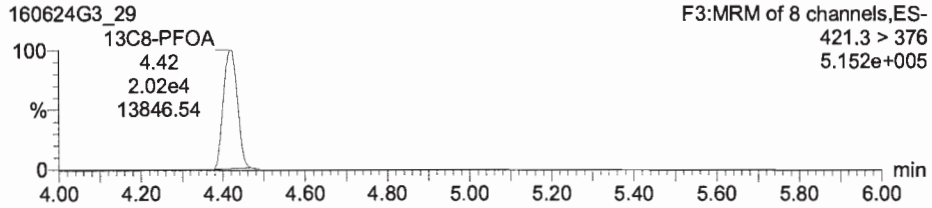
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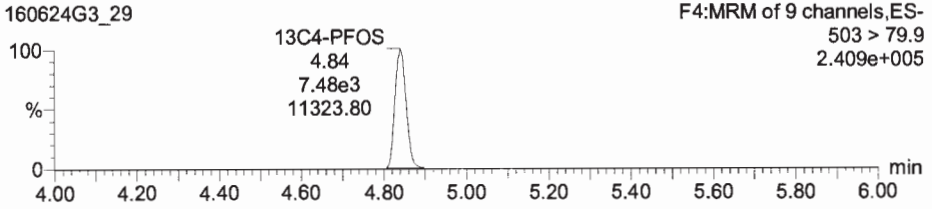
13C3-PFHxS



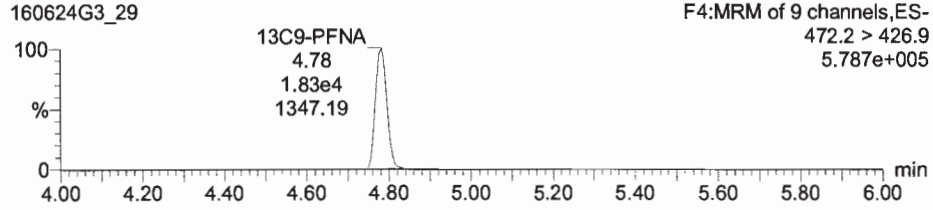
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13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

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2	2	PFHpA	318.9	5.66e3	1.52e4		1.000	4.36	25.2	100.8
3	3	PFHxS	79.91	2.54e3	2.03e3		1.000	4.48	24.6	98.2
4	4	PFOA	368.9	9.62e3	1.21e4		1.000	4.75	24.2	96.8
5	5	PFOS	79.92	7.36e3	5.79e3		1.000	5.13	23.6	94.3
6	6	PFNA	419.0	1.29e4	1.19e4		1.000	5.07	24.4	97.4
7	7	13C3-PFBS	79.95	7.90e3	1.43e4	0.546	1.000	3.47	12.7	101.5
8	8	13C4-PFHpA	321.9	1.52e4	1.43e4	1.075	1.000	4.36	12.4	99.2
9	9	18O2-PFHxS	102.9	2.03e3	6.29e3	0.307	1.000	4.47	13.1	104.9
10	10	13C2-PFOA	369.9	1.21e4	1.22e4	1.042	1.000	4.75	11.9	95.2
11	11	13C8-PFOS	79.93	5.79e3	5.66e3	1.026	1.000	5.13	12.5	99.7
12	12	13C5-PFNA	422.9	1.19e4	5.72e2	21.158	1.000	5.07	12.3	98.3
13	13	13C5-PFHxA	273.0	1.43e4	1.43e4	1.000	1.000	3.89	12.5	100.0
14	14	13C3-PFHxS	80.0	6.29e3	6.29e3	1.000	1.000	4.47	12.5	100.0
15	15	13C8-PFOA	375.9	1.22e4	1.22e4	1.000	1.000	4.75	12.5	100.0
16	16	13C4-PFOS	79.94	5.66e3	5.66e3	1.000	1.000	5.13	12.5	100.0
17	17	13C9-PFNA	427.0	5.72e2	5.72e2	1.000	1.000	5.07	12.5	100.0
18	18	Total PFBS	79.9		7.90e3		1.000		25.0	
19	19	Total PFHxS	79.91		2.03e3		1.000		24.6	
20	20	Total PFOA	368.9		1.21e4		1.000		24.2	
21	21	Total PFOS	79.92		5.79e3		1.000		23.7	

75-125
PW
6/29/16
PW
NA 60-150
NA
60-150
BR 6/29/16
50-150

Printing Time: 11:57:18
Printing Date: Wednesday, June 29, 2016

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3	160628J1_03	6/28/2016 16:21:13	ST160628J1-2 PFC CS1 16F0702	PFC CS1 16F0702
4	160628J1_04	6/28/2016 16:33:26	ST160628J1-3 PFC CS2 16F0703	PFC CS2 16F0703
5	160628J1_05	6/28/2016 16:45:38	ST160628J1-4 PFC CS3 16F0704	PFC CS3 16F0704
6	160628J1_06	6/28/2016 16:57:51	ST160628J1-5 PFC CS3.5 16F0705	PFC CS3.5 16F0705
7	160628J1_07	6/28/2016 17:10:01	ST160628J1-6 PFC CS4 16F0706	PFC CS4 16F0706
8	160628J1_08	6/28/2016 17:22:14	ST160628J1-7 PFC CS4.5 16F0707	PFC CS4.5 16F0707
9	160628J1_09	6/28/2016 17:34:27	ST160628J1-8 PFC CS5 16F0708	PFC CS5 16F0708
10	160628J1_10	6/28/2016 17:46:39	ST160628J1-9 PFC CS6 16F0709	PFC CS6 16F0709
11	160628J1_11	6/28/2016 17:58:52	IPA	IPA
12	160628J1_12	6/28/2016 18:11:06	IPA	IPA
13	160628J1_13	6/28/2016 18:23:17	SS160628J1-1 PFC SSS 16F0907	PFC SSS 16F0907
14	160628J1_14	6/28/2016 18:35:29	IPA	IPA
15	160628J1_15	6/28/2016 18:47:40	B6F0156-BS1	OPR
16	160628J1_16	6/28/2016 18:59:54	B6F0157-BS1	OPR
17	160628J1_17	6/28/2016 19:12:07	IPA	IPA
18	160628J1_18	6/28/2016 19:24:20	B6F0156-BLK1	Method Blank
19	160628J1_19	6/28/2016 19:36:32	B6F0157-BLK1	Method Blank
20	160628J1_20	6/28/2016 19:48:47	1600818-01	OF14-MW07S-0616
21	160628J1_21	6/28/2016 20:01:01	1600818-02	OF14-MW07D-0616
22	160628J1_22	6/28/2016 20:13:11	1600818-03	OF-MW14-0616
23	160628J1_23	6/28/2016 20:25:26	1600818-04	OF-MW16-0616
24	160628J1_24	6/28/2016 20:37:39	1600818-05	OF-FB062016
25	160628J1_25	6/28/2016 20:49:51	1600818-06	OF-EB062016
26	160628J1_26	6/28/2016 21:02:04	1600818-07	OF-MW15-0616
27	160628J1_27	6/28/2016 21:14:15	1600818-08	OF-MW15D-0616
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29	160628J1_29	6/28/2016 21:38:43	1600818-10	OF14-MW06D-0616
30	160628J1_30	6/28/2016 21:50:55	IPA	IPA
31	160628J1_31	6/28/2016 22:03:07	ST160628J1-10 PFC CS3.5 16F0705	PFC CS3.5 16F0705
32	160628J1_32	6/28/2016 22:15:20	IPA	IPA
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34	160628J1_34	6/28/2016 22:39:43	1600818-12	OF-MW12D-0616
35	160628J1_35	6/28/2016 22:51:56	1600818-13	OF-MW12-0616
36	160628J1_36	6/28/2016 23:04:09	1600818-14	OF-MW13D-0616
37	160628J1_37	6/28/2016 23:16:23	1600818-15	OF-MW13DP-0616
38	160628J1_38	6/28/2016 23:28:36	1600818-16	OF-MW11D-0616
39	160628J1_39	6/28/2016 23:40:48	1600820-01	OF-MW10-0616
40	160628J1_40	6/28/2016 23:53:02	1600820-02	OF-MW08-0616
41	160628J1_41	6/29/2016 00:05:15	1600820-03	OF-MW08P-0616
42	160628J1_42	6/29/2016 00:17:24	1600820-04	OF-MW10D-0616
43	160628J1_43	6/29/2016 00:29:38	IPA	IPA
44	160628J1_44	6/29/2016 00:41:49	ST160628J1-11 PFC CS3.5 16F0705	PFC CS3.5 16E0705
45	160628J1_45	6/29/2016 00:54:00	IPA	IPA
46	160628J1_46	6/29/2016 01:06:12	1600820-05	OF-MW09-0616
47	160628J1_47	6/29/2016 01:18:25	1600820-06	OF-MW09D-0616
48	160628J1_48	6/29/2016 01:30:33	B6F0156-MS1	Matrix Spike
49	160628J1_49	6/29/2016 01:42:48	B6F0156-MSD1	Matrix Spike Dup
50	160628J1_50	6/29/2016 01:54:57	B6F0157-MS1	Matrix Spike
51	160628J1_51	6/29/2016 02:07:16	B6F0157-MSD1	Matrix Spike Dup
52	160628J1_52	6/29/2016 02:19:30	1600783-01@1:5	OFPOL-MW-7-0616
53	160628J1_53	6/29/2016 02:31:44	1600783-01@1:20	OFPOL-MW-7-0616
54	160628J1_54	6/29/2016 02:43:54	1600783-02@1:5	OFPOL-MW-4-0616

	Sample Name	Acquisition Date	Sample ID	Sample Comment
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58	160628J1_58	6/29/2016 03:32:48	IPA	IPA
59	160628J1_59	6/29/2016 03:44:58	1600783-03@1:10	OFPOL-MW-8-0616
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61	160628J1_61	6/29/2016 04:09:21	1600783-05@1:10	OFPOL-MW-3-0616
62	160628J1_62	6/29/2016 04:21:35	1600783-06@1:10	OFPOL-MW-3P-0616
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65	160628J1_65	6/29/2016 04:58:10	1600783-09@1:5	OF-MW11-0616
66	160628J1_66	6/29/2016 05:10:22	IPA	IPA
67	160628J1_67	6/29/2016 05:22:31	ST160628J1-13 PFC CS3.5 16F0705	PFC CS3.5 16F0705
68	160628J1_68	6/29/2016 05:34:44	IPA	IPA

Vista Analytical Laboratory Q2

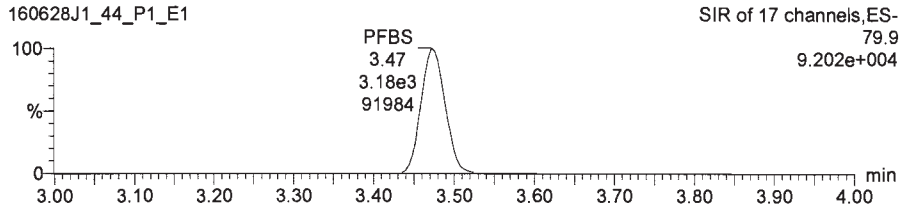
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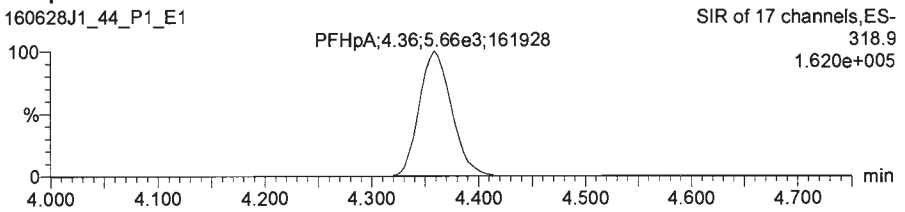
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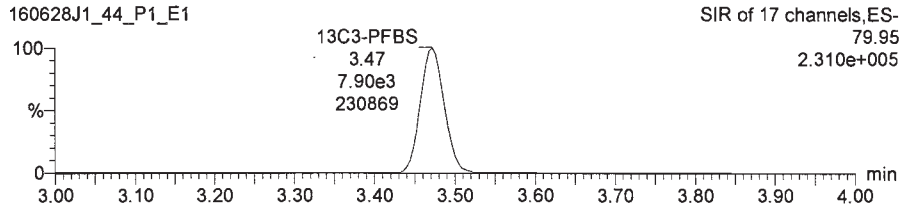
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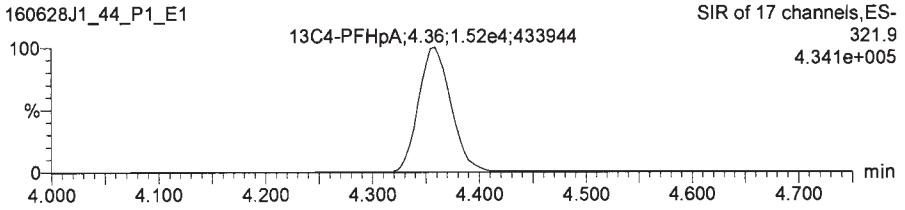
PFHpA



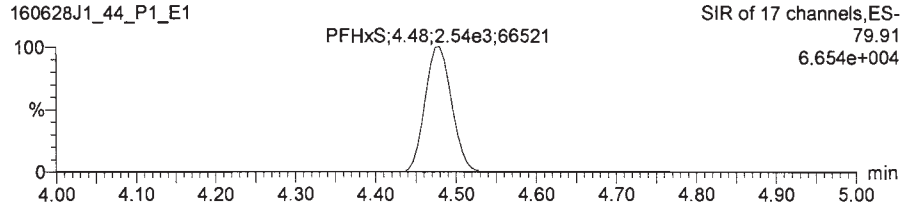
13C3-PFBS



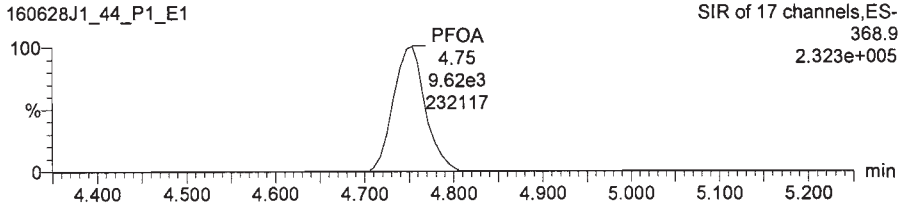
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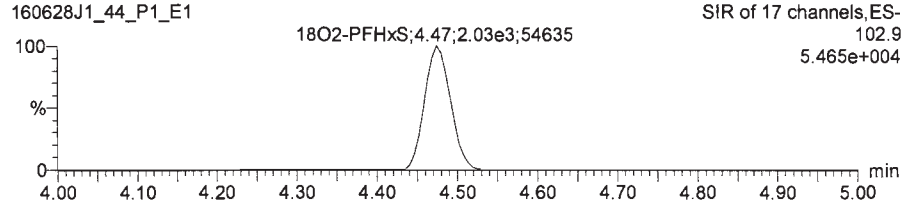
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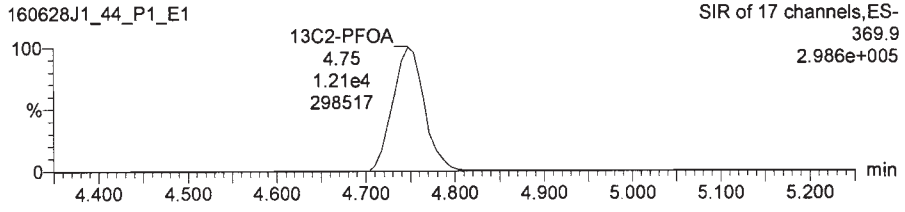
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18O2-PFHxS



13C2-PFOA

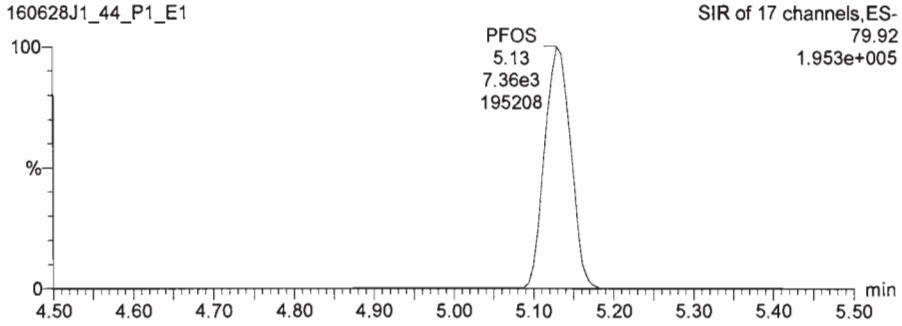


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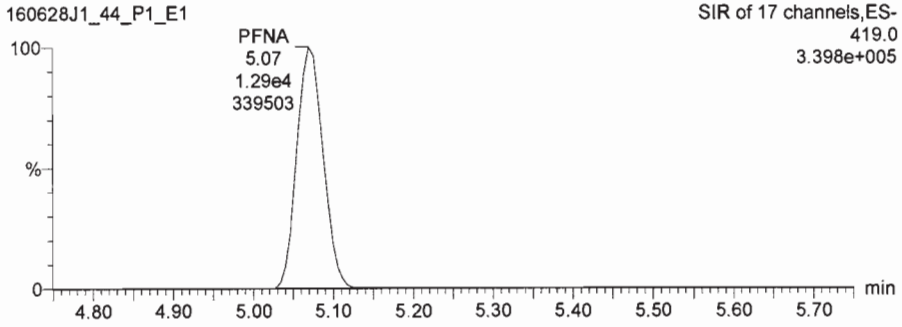
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Name: 160628J1_44.wiff, Date: 29-Jun-2016, Time: 00:41:49, ID: ST160628J1-11 PFC CS3.5 16F0705, Description: PFC CS3.5 16E0705

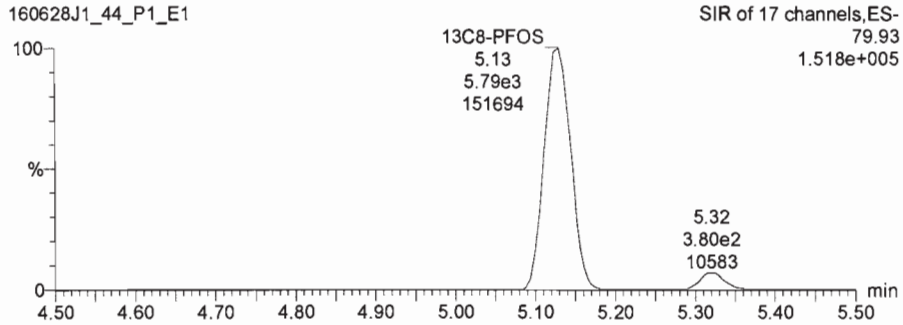
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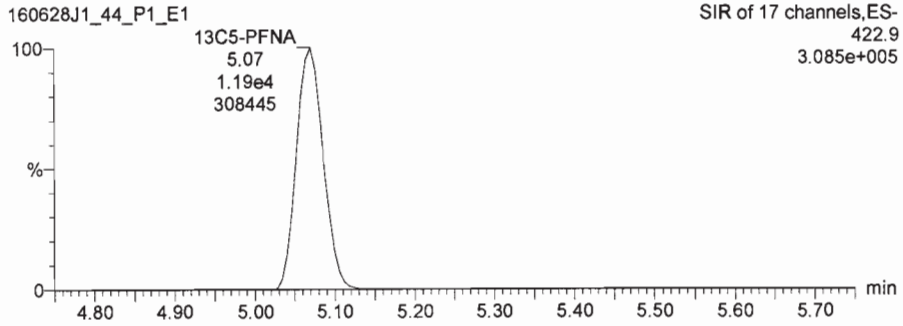
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13C8-PFOS



13C5-PFNA

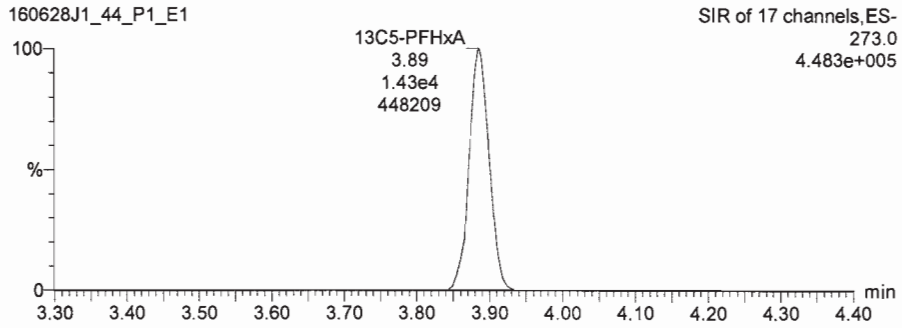


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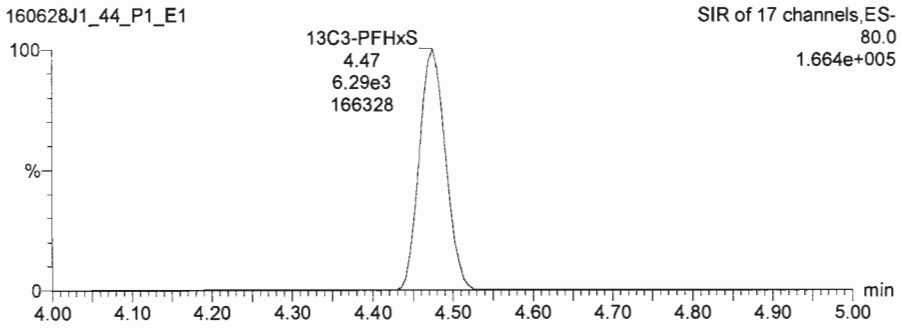
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Name: 160628J1_44.wiff, Date: 29-Jun-2016, Time: 00:41:49, ID: ST160628J1-11 PFC CS3.5 16F0705, Description: PFC CS3.5 16E0705

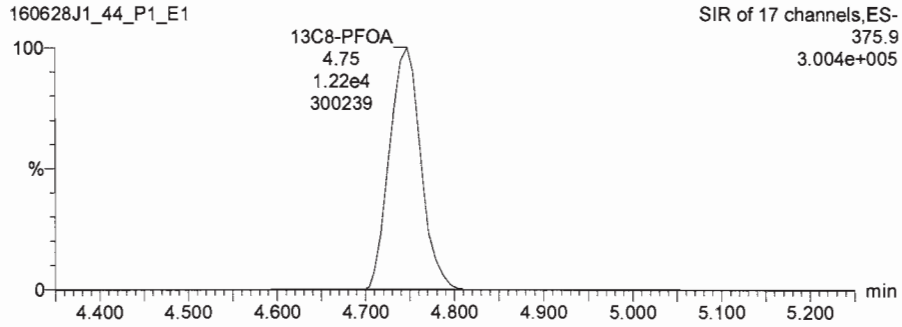
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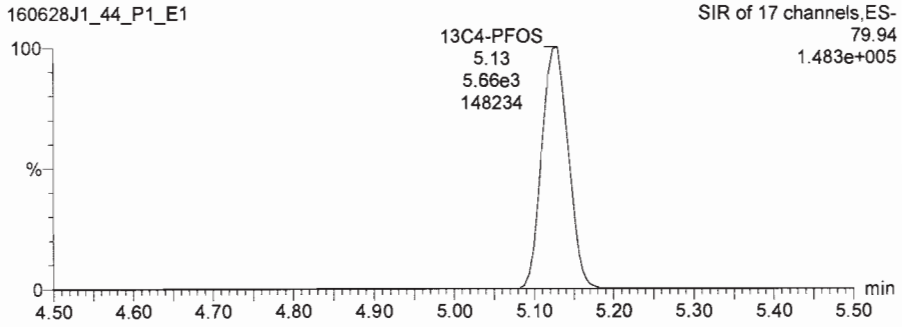
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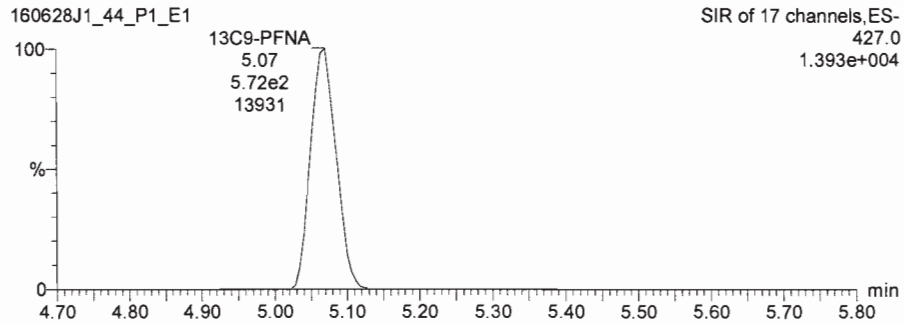
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J_57.qld

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Name: 160628J1_57.wiff, Date: 29-Jun-2016, Time: 03:20:34, ID: ST160628J1-12 PFC CS3.5 16F0705, Description: PFC CS3.5 16F0705

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1	1	PFBS	79.9	3.18e3	7.93e3		1.000	3.47	24.9	99.8
2	2	PFHpA	318.9	5.76e3	1.56e4		1.000	4.35	25.0	99.8
3	3	PFHxS	79.91	2.50e3	2.03e3		1.000	4.47	24.1	96.5
4	4	PFOA	368.9	9.52e3	1.24e4		1.000	4.74	23.4	93.6
5	5	PFOS	79.92	7.27e3	5.68e3		1.000	5.13	23.8	95.0
6	6	PFNA	419.0	1.29e4	1.22e4		1.000	5.07	23.7	94.8
7	7	13C3-PFBS	79.95	7.93e3	1.42e4	0.546	1.000	3.47	12.8	102.3
8	8	13C4-PFHpA	321.9	1.56e4	1.42e4	1.075	1.000	4.35	12.8	102.3
9	9	18O2-PFHxS	102.9	2.03e3	6.48e3	0.307	1.000	4.47	12.7	101.9
10	10	13C2-PFOA	369.9	1.24e4	1.22e4	1.042	1.000	4.74	12.2	97.4
11	11	13C8-PFOS	79.93	5.68e3	5.39e3	1.026	1.000	5.12	12.8	102.8
12	12	13C5-PFNA	422.9	1.22e4	5.64e2	21.158	1.000	5.06	12.8	102.3
13	13	13C5-PFHxA	273.0	1.42e4	1.42e4	1.000	1.000	3.88	12.5	100.0
14	14	13C3-PFHxS	80.0	6.48e3	6.48e3	1.000	1.000	4.47	12.5	100.0
15	15	13C8-PFOA	375.9	1.22e4	1.22e4	1.000	1.000	4.74	12.5	100.0
16	16	13C4-PFOS	79.94	5.39e3	5.39e3	1.000	1.000	5.12	12.5	100.0
17	17	13C9-PFNA	427.0	5.64e2	5.64e2	1.000	1.000	5.06	12.5	100.0
18	18	Total PFBS	79.9		7.93e3		1.000		24.9	
19	19	Total PFHxS	79.91		2.03e3		1.000		24.1	
20	20	Total PFOA	368.9		1.24e4		1.000		23.4	
21	21	Total PFOS	79.92		5.68e3		1.000		23.8	

75-125
6/29/16 PW
NA 60-150
NA
60-150
50-150

PW 2/29/16

BR 6/29/16 ✓

	Sample Name	Acquisition Date	Sample ID	Sample Comment
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3	160628J1_03	6/28/2016 16:21:13	ST160628J1-2 PFC CS1 16F0702	PFC CS1 16F0702
4	160628J1_04	6/28/2016 16:33:26	ST160628J1-3 PFC CS2 16F0703	PFC CS2 16F0703
5	160628J1_05	6/28/2016 16:45:38	ST160628J1-4 PFC CS3 16F0704	PFC CS3 16F0704
6	160628J1_06	6/28/2016 16:57:51	ST160628J1-5 PFC CS3.5 16F0705	PFC CS3.5 16F0705
7	160628J1_07	6/28/2016 17:10:01	ST160628J1-6 PFC CS4 16F0706	PFC CS4 16F0706
8	160628J1_08	6/28/2016 17:22:14	ST160628J1-7 PFC CS4.5 16F0707	PFC CS4.5 16F0707
9	160628J1_09	6/28/2016 17:34:27	ST160628J1-8 PFC CS5 16F0708	PFC CS5 16F0708
10	160628J1_10	6/28/2016 17:46:39	ST160628J1-9 PFC CS6 16F0709	PFC CS6 16F0709
11	160628J1_11	6/28/2016 17:58:52	IPA	IPA
12	160628J1_12	6/28/2016 18:11:06	IPA	IPA
13	160628J1_13	6/28/2016 18:23:17	SS160628J1-1 PFC SSS 16F0907	PFC SSS 16F0907
14	160628J1_14	6/28/2016 18:35:29	IPA	IPA
15	160628J1_15	6/28/2016 18:47:40	B6F0156-BS1	OPR
16	160628J1_16	6/28/2016 18:59:54	B6F0157-BS1	OPR
17	160628J1_17	6/28/2016 19:12:07	IPA	IPA
18	160628J1_18	6/28/2016 19:24:20	B6F0156-BLK1	Method Blank
19	160628J1_19	6/28/2016 19:36:32	B6F0157-BLK1	Method Blank
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21	160628J1_21	6/28/2016 20:01:01	1600818-02	OF14-MW07D-0616
22	160628J1_22	6/28/2016 20:13:11	1600818-03	OF-MW14-0616
23	160628J1_23	6/28/2016 20:25:26	1600818-04	OF-MW16-0616
24	160628J1_24	6/28/2016 20:37:39	1600818-05	OF-FB062016
25	160628J1_25	6/28/2016 20:49:51	1600818-06	OF-EB062016
26	160628J1_26	6/28/2016 21:02:04	1600818-07	OF-MW15-0616
27	160628J1_27	6/28/2016 21:14:15	1600818-08	OF-MW15D-0616
28	160628J1_28	6/28/2016 21:26:29	1600818-09	OF14-MW06-0616
29	160628J1_29	6/28/2016 21:38:43	1600818-10	OF14-MW06D-0616
30	160628J1_30	6/28/2016 21:50:55	IPA	IPA
31	160628J1_31	6/28/2016 22:03:07	ST160628J1-10 PFC CS3.5 16F0705	PFC CS3.5 16F0705
32	160628J1_32	6/28/2016 22:15:20	IPA	IPA
33	160628J1_33	6/28/2016 22:27:29	1600818-11	OF-MW17-0616
34	160628J1_34	6/28/2016 22:39:43	1600818-12	OF-MW12D-0616
35	160628J1_35	6/28/2016 22:51:56	1600818-13	OF-MW12-0616
36	160628J1_36	6/28/2016 23:04:09	1600818-14	OF-MW13D-0616
37	160628J1_37	6/28/2016 23:16:23	1600818-15	OF-MW13DP-0616
38	160628J1_38	6/28/2016 23:28:36	1600818-16	OF-MW11D-0616
39	160628J1_39	6/28/2016 23:40:48	1600820-01	OF-MW10-0616
40	160628J1_40	6/28/2016 23:53:02	1600820-02	OF-MW08-0616
41	160628J1_41	6/29/2016 00:05:15	1600820-03	OF-MW08P-0616
42	160628J1_42	6/29/2016 00:17:24	1600820-04	OF-MW10D-0616
43	160628J1_43	6/29/2016 00:29:38	IPA	IPA
44	160628J1_44	6/29/2016 00:41:49	ST160628J1-11 PFC CS3.5 16F0705	PFC CS3.5 16E0705
45	160628J1_45	6/29/2016 00:54:00	IPA	IPA
46	160628J1_46	6/29/2016 01:06:12	1600820-05	OF-MW09-0616
47	160628J1_47	6/29/2016 01:18:25	1600820-06	OF-MW09D-0616
48	160628J1_48	6/29/2016 01:30:33	B6F0156-MS1	Matrix Spike
49	160628J1_49	6/29/2016 01:42:48	B6F0156-MSD1	Matrix Spike Dup
50	160628J1_50	6/29/2016 01:54:57	B6F0157-MS1	Matrix Spike
51	160628J1_51	6/29/2016 02:07:16	B6F0157-MSD1	Matrix Spike Dup
52	160628J1_52	6/29/2016 02:19:30	1600783-01@1:5	OFPOL-MW-7-0616
53	160628J1_53	6/29/2016 02:31:44	1600783-01@1:20	OFPOL-MW-7-0616
54	160628J1_54	6/29/2016 02:43:54	1600783-02@1:5	OFPOL-MW-4-0616

	Sample Name	Acquisition Date	Sample ID	Sample Comment
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57	160628J1_57	6/29/2016 03:20:34	ST160628J1-12 PFC CS3.5 16F0705	PFC CS3.5 16F0705
58	160628J1_58	6/29/2016 03:32:48	IPA	IPA
59	160628J1_59	6/29/2016 03:44:58	1600783-03@1:10	OFPOL-MW-8-0616
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61	160628J1_61	6/29/2016 04:09:21	1600783-05@1:10	OFPOL-MW-3-0616
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67	160628J1_67	6/29/2016 05:22:31	ST160628J1-13 PFC CS3.5 16F0705	PFC CS3.5 16F0705
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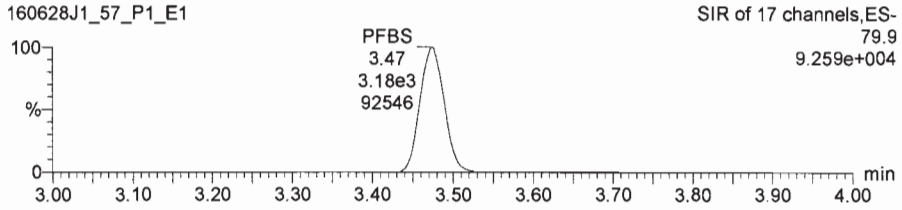
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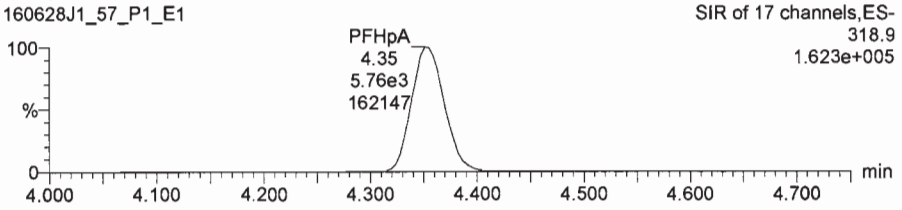
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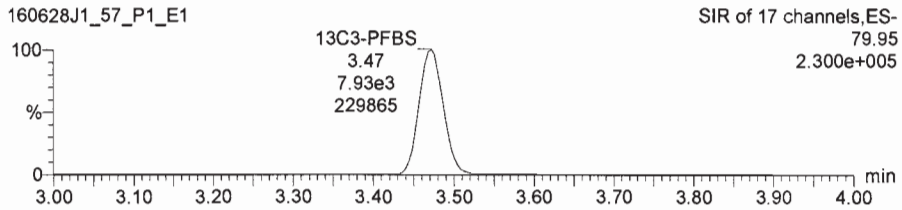
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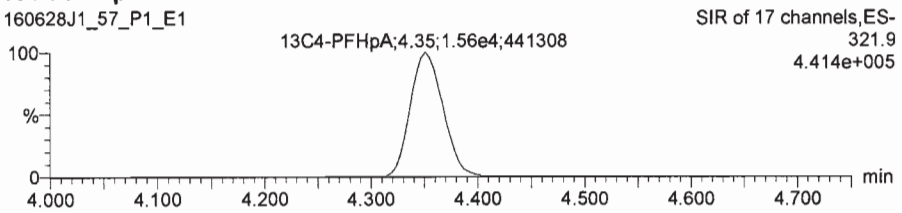
PFHpA



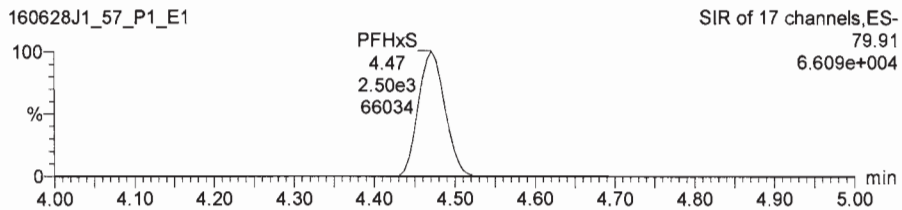
13C3-PFBS



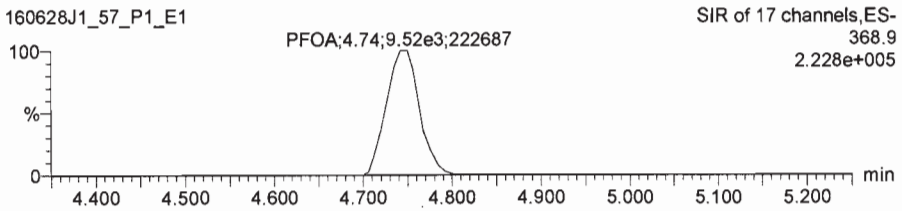
13C4-PFHpA



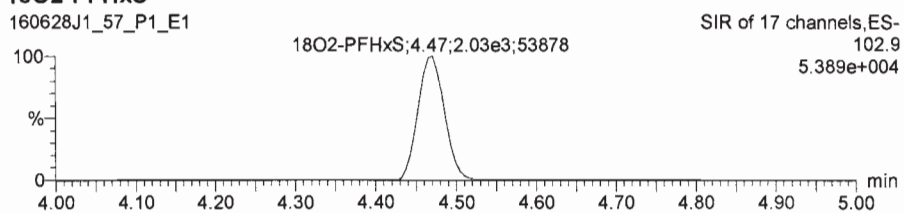
PFHxS



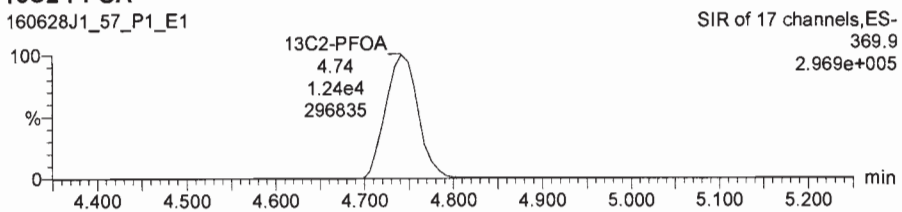
PFOA



18O2-PFHxS



13C2-PFOA

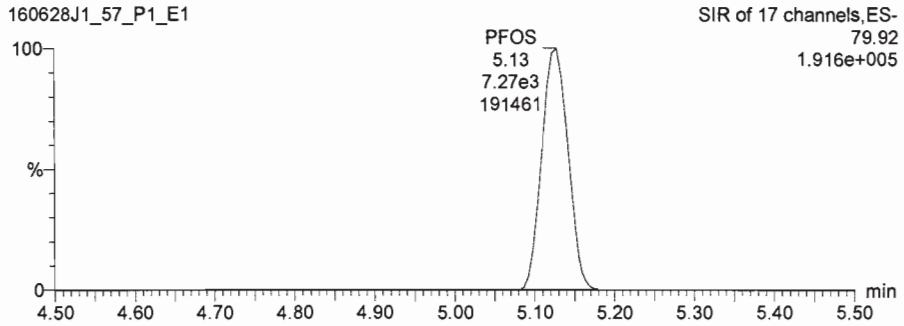


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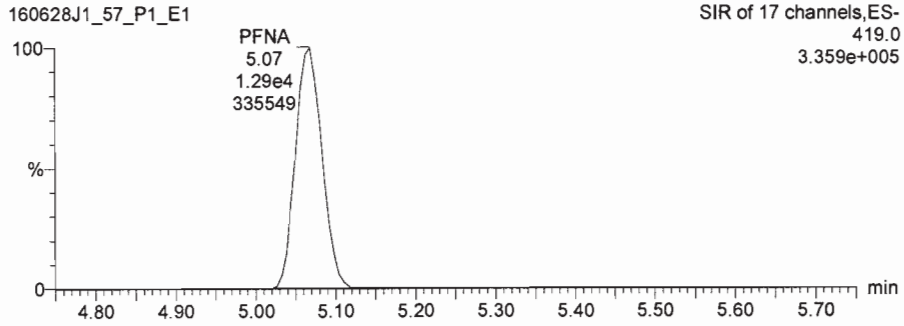
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Name: 160628J1_57.wiff, Date: 29-Jun-2016, Time: 03:20:34, ID: ST160628J1-12 PFC CS3.5 16F0705, Description: PFC CS3.5 16F0705

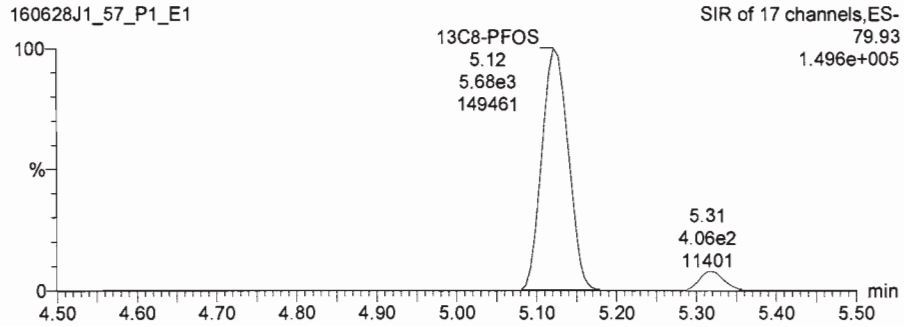
PFOS



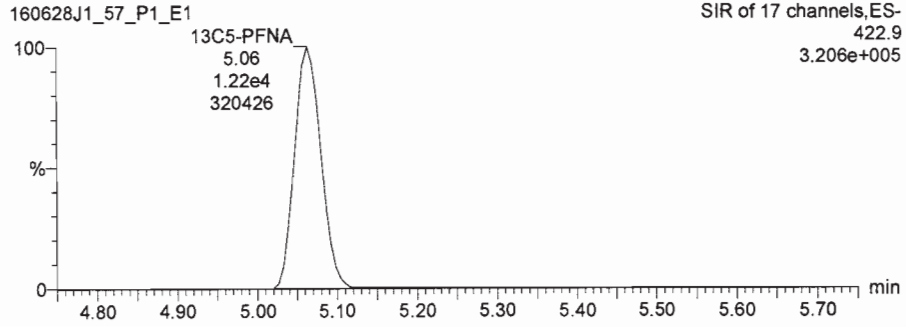
PFNA



13C8-PFOS



13C5-PFNA

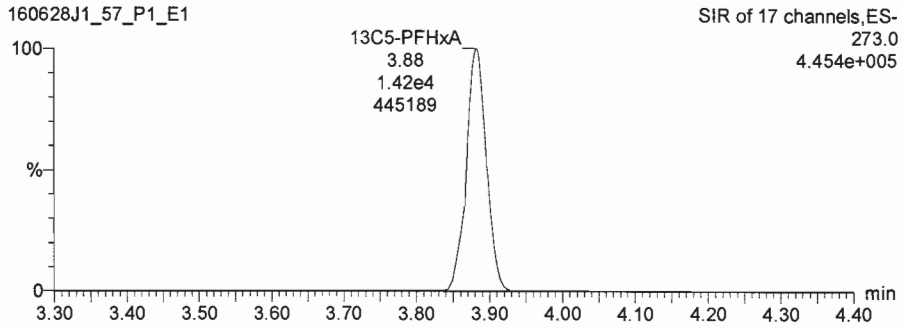


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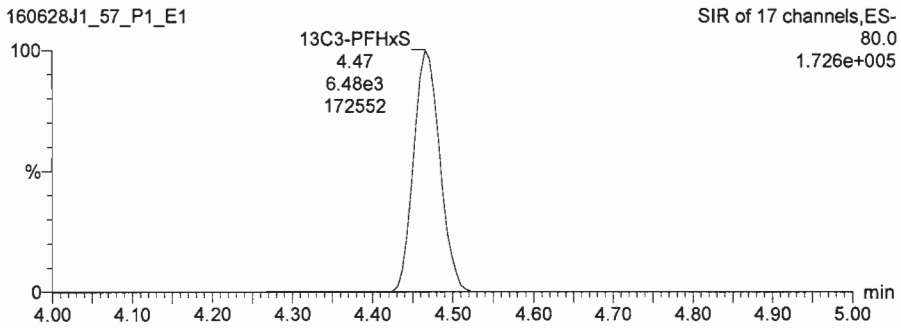
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Name: 160628J1_57.wiff, Date: 29-Jun-2016, Time: 03:20:34, ID: ST160628J1-12 PFC CS3.5 16F0705, Description: PFC CS3.5 16F0705

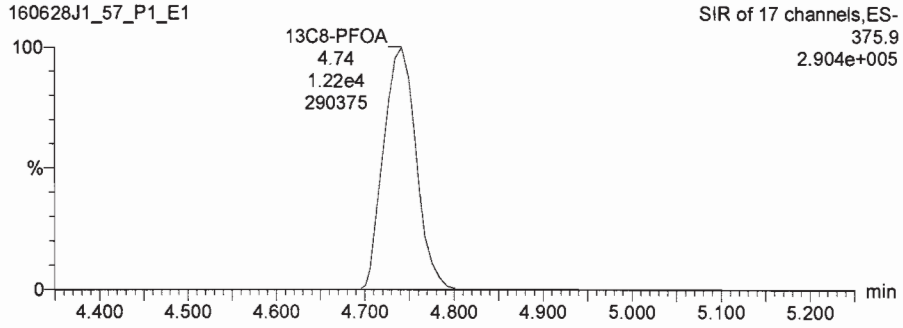
13C5-PFHxA



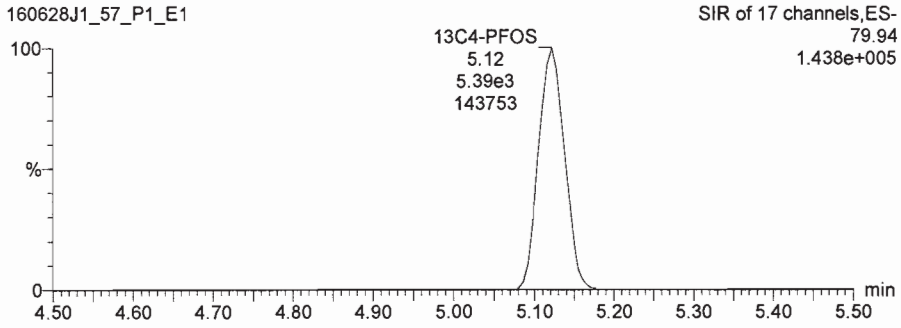
13C3-PFHxS



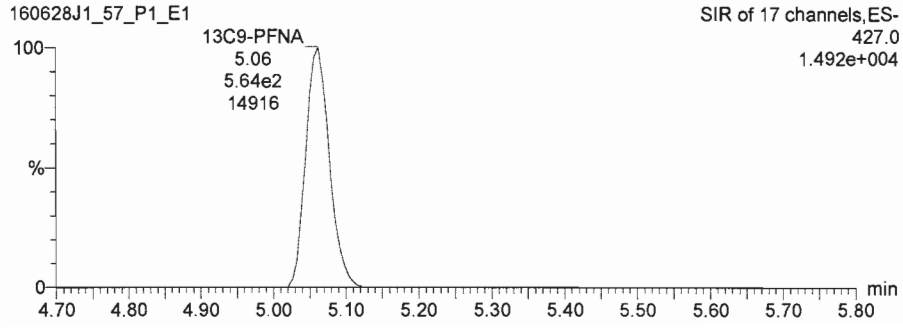
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

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Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_67.wiff, Date: 29-Jun-2016, Time: 05:22:31, ID: ST160628J1-13 PFC CS3.5 16F0705, Description: PFC CS3.5 16F0705

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1	PFBS	79.9	3.24e3	7.95e3		1.000	3.48	25.3	101.3
2	2	PFHpA	318.9	5.49e3	1.49e4		1.000	4.35	24.9	99.7
3	3	PFHxS	79.91	2.48e3	2.06e3		1.000	4.47	23.5	94.1
4	4	PFOA	368.9	9.69e3	1.28e4		1.000	4.75	23.1	92.2
5	5	PFOS	79.92	7.62e3	5.69e3		1.000	5.12	24.9	99.5
6	6	PFNA	419.0	1.25e4	1.15e4		1.000	5.06	24.4	97.5
7	7	13C3-PFBS	79.95	7.95e3	1.43e4	0.546	1.000	3.47	12.7	101.8
8	8	13C4-PFHpA	321.9	1.49e4	1.43e4	1.075	1.000	4.35	12.1	97.0
9	9	18O2-PFHxS	102.9	2.06e3	6.15e3	0.307	1.000	4.47	13.6	109.0
10	10	13C2-PFOA	369.9	1.28e4	1.18e4	1.042	1.000	4.75	12.9	103.4
11	11	13C8-PFOS	79.93	5.69e3	5.66e3	1.026	1.000	5.12	12.2	98.0
12	12	13C5-PFNA	422.9	1.15e4	5.87e2	21.158	1.000	5.06	11.5	92.3
13	13	13C5-PFHxA	273.0	1.43e4	1.43e4	1.000	1.000	3.88	12.5	100.0
14	14	13C3-PFHxS	80.0	6.15e3	6.15e3	1.000	1.000	4.46	12.5	100.0
15	15	13C8-PFOA	375.9	1.18e4	1.18e4	1.000	1.000	4.75	12.5	100.0
16	16	13C4-PFOS	79.94	5.66e3	5.66e3	1.000	1.000	5.12	12.5	100.0
17	17	13C9-PFNA	427.0	5.87e2	5.87e2	1.000	1.000	5.06	12.5	100.0
18	18	Total PFBS	79.9		7.95e3		1.000		25.3	
19	19	Total PFHxS	79.91		2.06e3		1.000		23.5	
20	20	Total PFOA	368.9		1.28e4		1.000		23.1	
21	21	Total PFOS	79.92		5.69e3		1.000		25.0	

75-125
NA 60-150
NA
60-150
50-150

PW 6/29/16

BR 6/29/16

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2	160628J1_02	6/28/2016 16:09:02	ST160628J1-1 PFC CS0 16F0701	PFC CS0 16F0701
3	160628J1_03	6/28/2016 16:21:13	ST160628J1-2 PFC CS1 16F0702	PFC CS1 16F0702
4	160628J1_04	6/28/2016 16:33:26	ST160628J1-3 PFC CS2 16F0703	PFC CS2 16F0703
5	160628J1_05	6/28/2016 16:45:38	ST160628J1-4 PFC CS3 16F0704	PFC CS3 16F0704
6	160628J1_06	6/28/2016 16:57:51	ST160628J1-5 PFC CS3.5 16F0705	PFC CS3.5 16F0705
7	160628J1_07	6/28/2016 17:10:01	ST160628J1-6 PFC CS4 16F0706	PFC CS4 16F0706
8	160628J1_08	6/28/2016 17:22:14	ST160628J1-7 PFC CS4.5 16F0707	PFC CS4.5 16F0707
9	160628J1_09	6/28/2016 17:34:27	ST160628J1-8 PFC CS5 16F0708	PFC CS5 16F0708
10	160628J1_10	6/28/2016 17:46:39	ST160628J1-9 PFC CS6 16F0709	PFC CS6 16F0709
11	160628J1_11	6/28/2016 17:58:52	IPA	IPA
12	160628J1_12	6/28/2016 18:11:06	IPA	IPA
13	160628J1_13	6/28/2016 18:23:17	SS160628J1-1 PFC SSS 16F0907	PFC SSS 16F0907
14	160628J1_14	6/28/2016 18:35:29	IPA	IPA
15	160628J1_15	6/28/2016 18:47:40	B6F0156-BS1	OPR
16	160628J1_16	6/28/2016 18:59:54	B6F0157-BS1	OPR
17	160628J1_17	6/28/2016 19:12:07	IPA	IPA
18	160628J1_18	6/28/2016 19:24:20	B6F0156-BLK1	Method Blank
19	160628J1_19	6/28/2016 19:36:32	B6F0157-BLK1	Method Blank
20	160628J1_20	6/28/2016 19:48:47	1600818-01	OF14-MW07S-0616
21	160628J1_21	6/28/2016 20:01:01	1600818-02	OF14-MW07D-0616
22	160628J1_22	6/28/2016 20:13:11	1600818-03	OF-MW14-0616
23	160628J1_23	6/28/2016 20:25:26	1600818-04	OF-MW16-0616
24	160628J1_24	6/28/2016 20:37:39	1600818-05	OF-FB062016
25	160628J1_25	6/28/2016 20:49:51	1600818-06	OF-EB062016
26	160628J1_26	6/28/2016 21:02:04	1600818-07	OF-MW15-0616
27	160628J1_27	6/28/2016 21:14:15	1600818-08	OF-MW15D-0616
28	160628J1_28	6/28/2016 21:26:29	1600818-09	OF14-MW06-0616
29	160628J1_29	6/28/2016 21:38:43	1600818-10	OF14-MW06D-0616
30	160628J1_30	6/28/2016 21:50:55	IPA	IPA
31	160628J1_31	6/28/2016 22:03:07	ST160628J1-10 PFC CS3.5 16F0705	PFC CS3.5 16F0705
32	160628J1_32	6/28/2016 22:15:20	IPA	IPA
33	160628J1_33	6/28/2016 22:27:29	1600818-11	OF-MW17-0616
34	160628J1_34	6/28/2016 22:39:43	1600818-12	OF-MW12D-0616
35	160628J1_35	6/28/2016 22:51:56	1600818-13	OF-MW12-0616
36	160628J1_36	6/28/2016 23:04:09	1600818-14	OF-MW13D-0616
37	160628J1_37	6/28/2016 23:16:23	1600818-15	OF-MW13DP-0616
38	160628J1_38	6/28/2016 23:28:36	1600818-16	OF-MW11D-0616
39	160628J1_39	6/28/2016 23:40:48	1600820-01	OF-MW10-0616
40	160628J1_40	6/28/2016 23:53:02	1600820-02	OF-MW08-0616
41	160628J1_41	6/29/2016 00:05:15	1600820-03	OF-MW08P-0616
42	160628J1_42	6/29/2016 00:17:24	1600820-04	OF-MW10D-0616
43	160628J1_43	6/29/2016 00:29:38	IPA	IPA
44	160628J1_44	6/29/2016 00:41:49	ST160628J1-11 PFC CS3.5 16F0705	PFC CS3.5 16E0705
45	160628J1_45	6/29/2016 00:54:00	IPA	IPA
46	160628J1_46	6/29/2016 01:06:12	1600820-05	OF-MW09-0616
47	160628J1_47	6/29/2016 01:18:25	1600820-06	OF-MW09D-0616
48	160628J1_48	6/29/2016 01:30:33	B6F0156-MS1	Matrix Spike
49	160628J1_49	6/29/2016 01:42:48	B6F0156-MSD1	Matrix Spike Dup
50	160628J1_50	6/29/2016 01:54:57	B6F0157-MS1	Matrix Spike
51	160628J1_51	6/29/2016 02:07:16	B6F0157-MSD1	Matrix Spike Dup
52	160628J1_52	6/29/2016 02:19:30	1600783-01@1:5	OFPOL-MW-7-0616
53	160628J1_53	6/29/2016 02:31:44	1600783-01@1:20	OFPOL-MW-7-0616
54	160628J1_54	6/29/2016 02:43:54	1600783-02@1:5	OFPOL-MW-4-0616

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57	160628J1_57	6/29/2016 03:20:34	ST160628J1-12 PFC CS3.5 16F0705	PFC CS3.5 16F0705
58	160628J1_58	6/29/2016 03:32:48	IPA	IPA
59	160628J1_59	6/29/2016 03:44:58	1600783-03@1:10	OFPOL-MW-8-0616
60	160628J1_60	6/29/2016 03:57:12	1600783-04@1:10	OFPOL-MW-6-0616
61	160628J1_61	6/29/2016 04:09:21	1600783-05@1:10	OFPOL-MW-3-0616
62	160628J1_62	6/29/2016 04:21:35	1600783-06@1:10	OFPOL-MW-3P-0616
63	160628J1_63	6/29/2016 04:33:48	1600783-07@1:10	OFPOL-MW-2-0616
64	160628J1_64	6/29/2016 04:45:59	1600783-08@1:5	OF-MW13-0616
65	160628J1_65	6/29/2016 04:58:10	1600783-09@1:5	OF-MW11-0616
66	160628J1_66	6/29/2016 05:10:22	IPA	IPA
67	160628J1_67	6/29/2016 05:22:31	ST160628J1-13 PFC CS3.5 16F0705	PFC CS3.5 16F0705
68	160628J1_68	6/29/2016 05:34:44	IPA	IPA

Vista Analytical Laboratory Q2

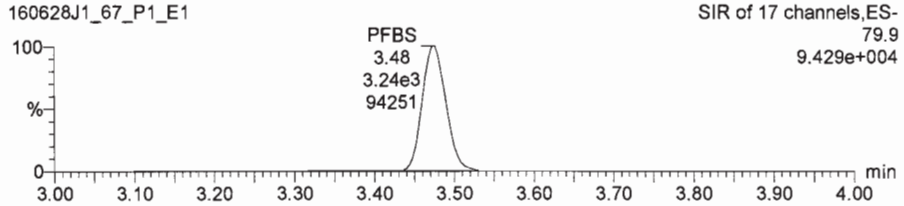
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Printed: Wednesday, June 29, 2016 12:57:39 Pacific Daylight Time

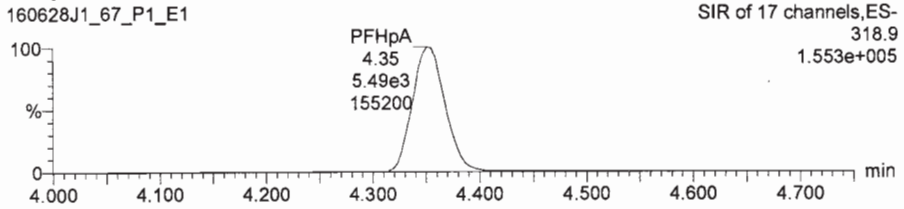
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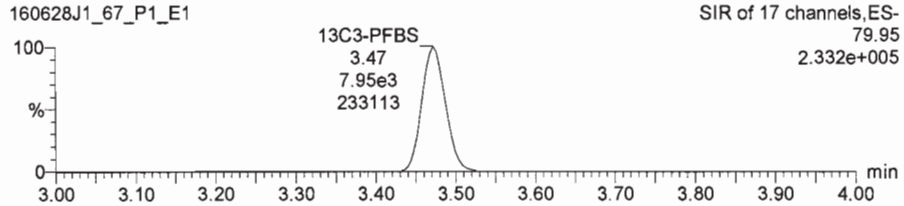
PFBS



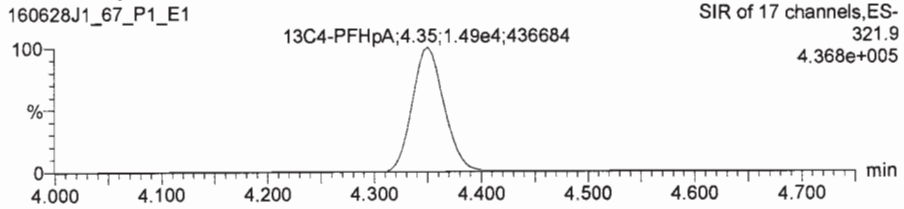
PFHpA



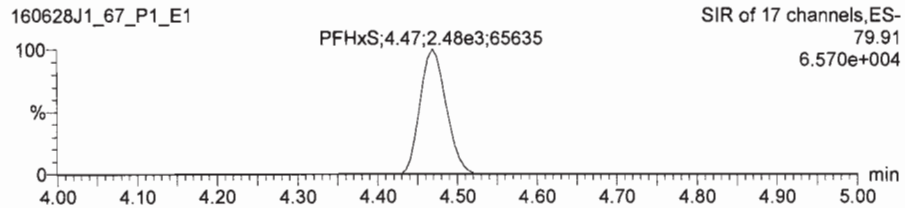
13C3-PFBS



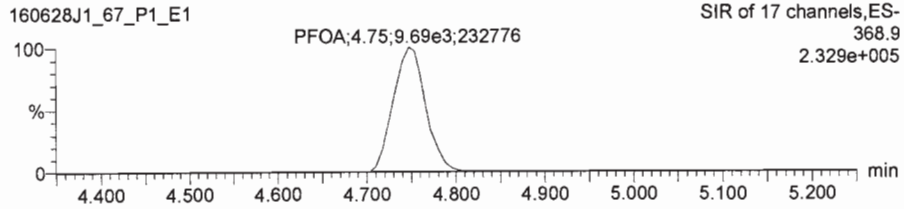
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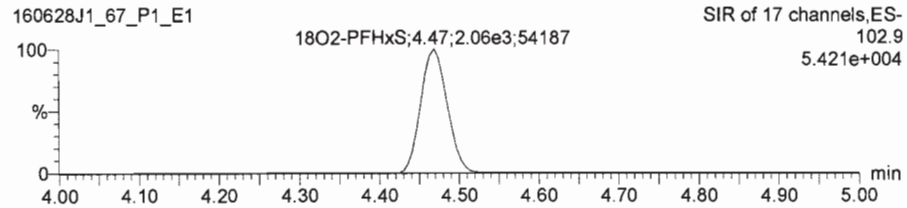
PFHxS



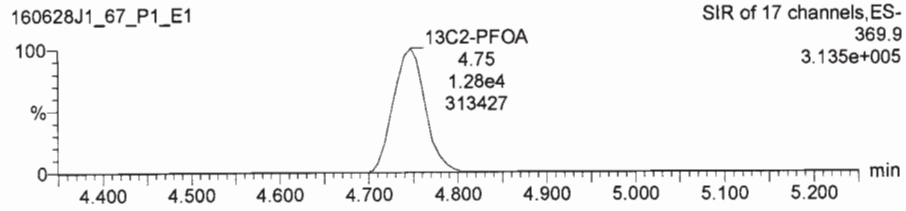
PFOA



18O2-PFHxS



13C2-PFOA

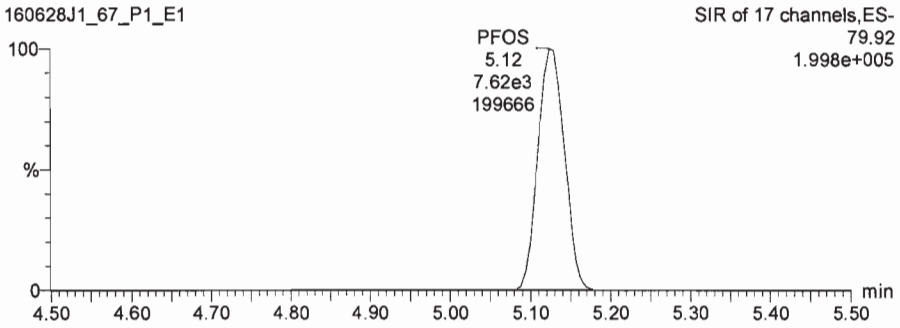


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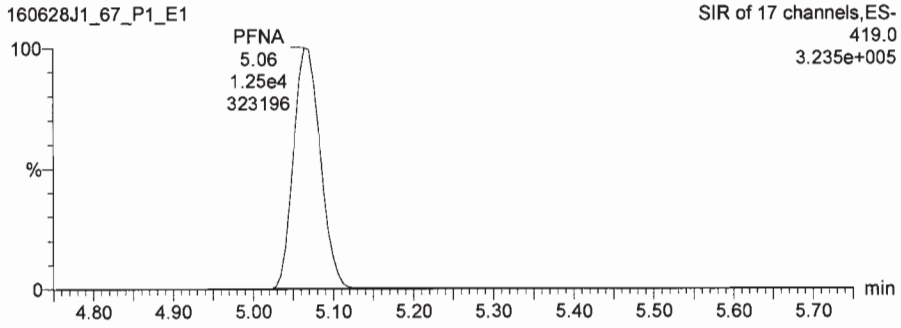
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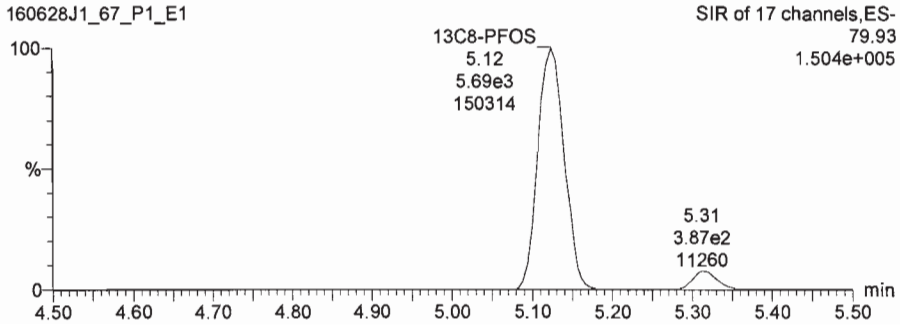
PFOS



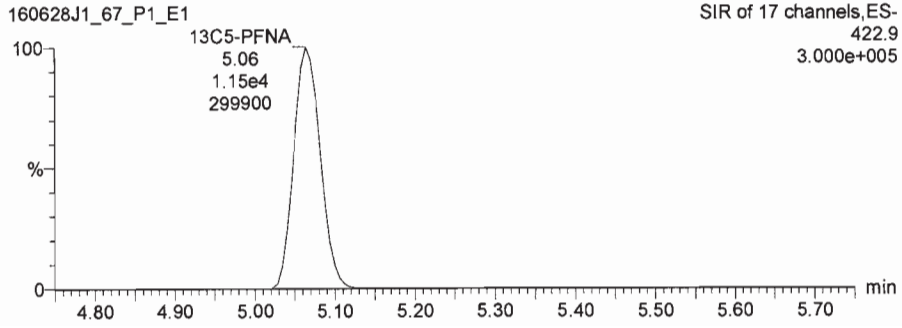
PFNA



13C8-PFOS



13C5-PFNA

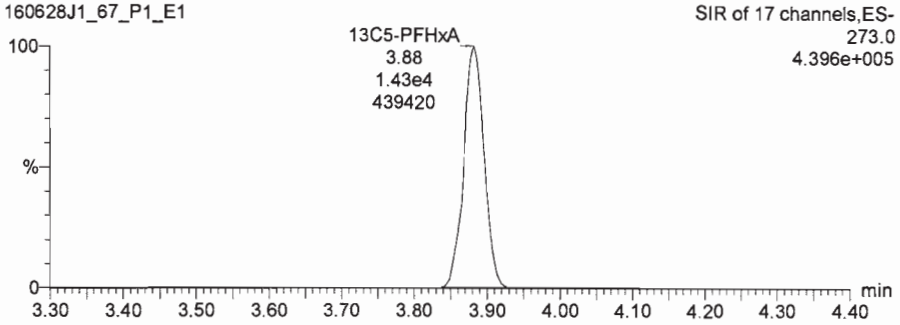


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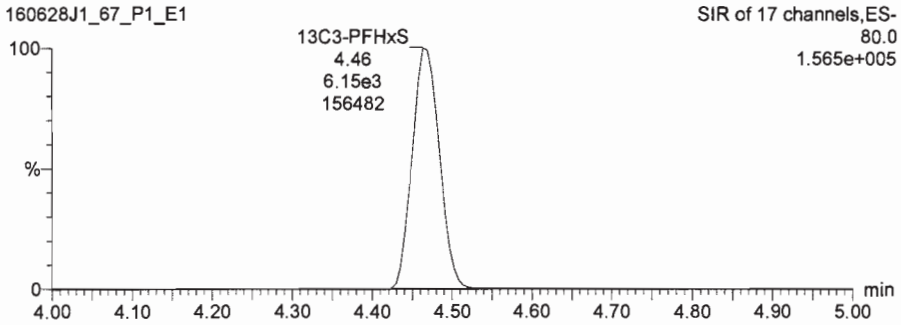
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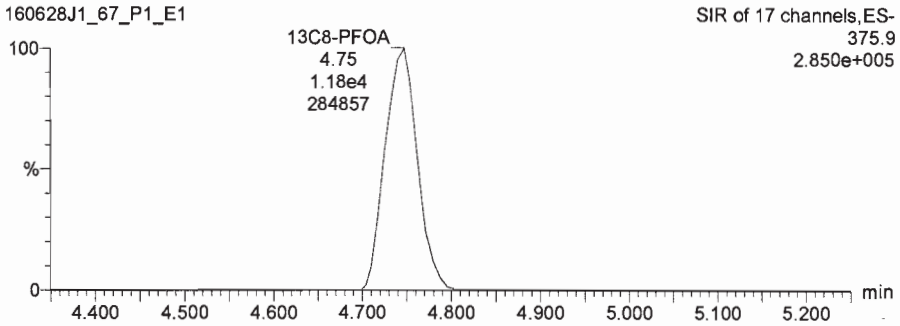
13C5-PFHxA



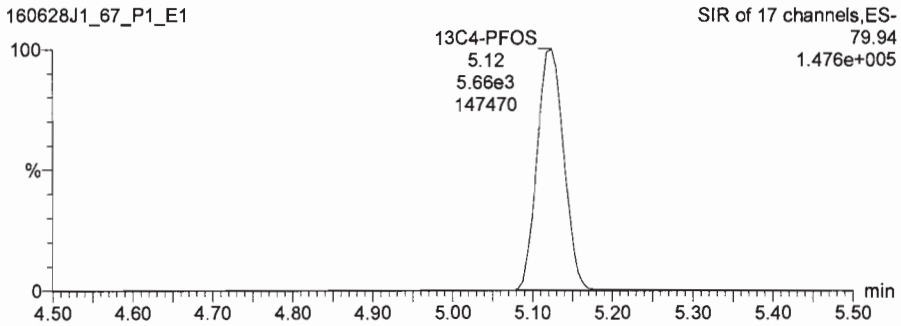
13C3-PFHxS



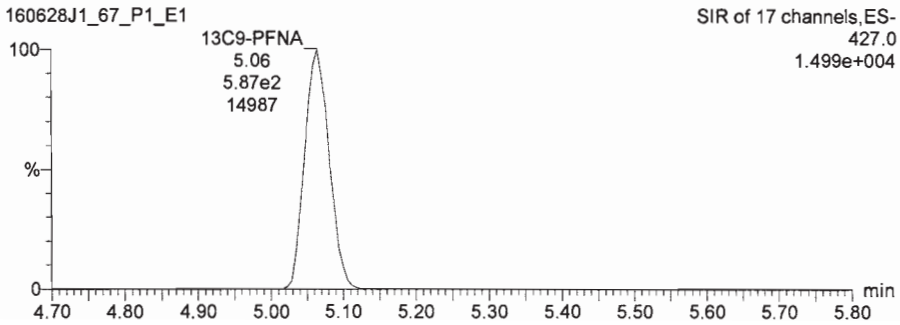
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_25.qld

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Printed: Thursday, June 30, 2016 08:38:39 Pacific Daylight Time

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Name: 160629G3_25, Date: 30-Jun-2016, Time: 05:15:52, ID: ST160629G3-10 PFC CS3.5 16F2209, Description: PFC CS3.5 16F2209 A

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1	1	PFBS	299 > 79.7	2.17e4	6.72e3		1.000	3.09	26.1	104.3	75-125
2	2	PFHpA	363 > 318.9	5.73e4	2.18e4		1.000	3.96	24.2	97.0	
3	3	PFHxS	398.9 > 79.6	1.81e4	6.04e3		1.000	4.07	25.8	103.4	
4	4	PFOA	413 > 368.7	4.71e4	3.16e4		1.000	4.38	23.1	92.5	
5	5	PFOS	499 >79.9	7.56e3	6.54e3		1.000	4.80	23.0	92.1	
6	6	PFNA	463 > 418.8	3.05e4	1.17e4		1.000	4.74	24.1	96.2	
7	7	13C3-PFBS	302.0 > 98.8	6.72e3	2.77e4	0.241	1.000	3.09	12.6	100.5	60-150
8	8	13C4-PFHpA	367.2 > 321.8	2.18e4	2.77e4	0.744	1.000	3.96	13.2	105.8	
9	9	18O2-PFHxS	403 > 102.6	6.04e3	1.05e4	0.572	1.000	4.07	12.6	100.8	
10	10	13C2-PFOA	414.9 > 369.7	3.16e4	1.26e4	2.230	1.000	4.38	14.1	112.9	
11	11	13C8-PFOS	507 > 79.9	6.54e3	5.80e3	1.108	1.000	4.80	12.7	101.8	
12	12	13C5-PFNA	468.2 > 422.9	1.17e4	1.09e4	1.014	1.000	4.74	13.2	105.9	50-150
13	13	13C5-PFHxA	318.0 > 272.9	2.77e4	2.77e4	1.000	1.000	3.44	12.5	100.0	
14	14	13C3-PFHxS	401.9 > 79.9	1.05e4	1.05e4	1.000	1.000	4.07	12.5	100.0	
15	15	13C8-PFOA	421.3 > 376	1.26e4	1.26e4	1.000	1.000	4.38	12.5	100.0	
16	16	13C4-PFOS	503 > 79.9	5.80e3	5.80e3	1.000	1.000	4.80	12.5	100.0	
17	17	13C9-PFNA	472.2 > 426.9	1.09e4	1.09e4	1.000	1.000	4.74	12.5	100.0	

BR 6/30/16

PW 6/30/16

Vista Analytical Laboratory VG-9

Dataset: Untitled

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	160629G3_1	IPA	30-Jun-16	00:11:53
2	160629G3_2	ST160629G3-1 PFC CS0 16F2205	30-Jun-16	00:24:33
3	160629G3_3	ST160629G3-2 PFC CS1 16F2206	30-Jun-16	00:37:11
4	160629G3_4	ST160629G3-3 PFC CS2 16F2207	30-Jun-16	00:49:50
5	160629G3_5	ST160629G3-4 PFC CS3 16F2208	30-Jun-16	01:02:29
6	160629G3_6	ST160629G3-5 PFC CS3.5 16F2209	30-Jun-16	01:15:09
7	160629G3_7	ST160629G3-6 PFC CS4 16F2210	30-Jun-16	01:27:50
8	160629G3_8	ST160629G3-7 PFC CS4.5 16F2211	30-Jun-16	01:40:29
9	160629G3_9	ST160629G3-8 PFC CS5 16F2212	30-Jun-16	01:53:10
10	160629G3_10	ST160629~~G3-8~~ PFC CS6 16F2213	30-Jun-16	02:05:50
11	160629G3_11	IPA 63-9 BR 6/30/16	30-Jun-16	02:18:32
12	160629G3_12	SS160629G3-1 PFC SSS 16F2214	30-Jun-16	02:31:15
13	160629G3_13	IPA	30-Jun-16	02:43:53
14	160629G3_14	1600783-01@25X OFPOL-MW-7-0616 0.125	30-Jun-16	02:56:35
15	160629G3_15	1600783-01@20X OFPOL-MW-7-0616 0.125 (A)	30-Jun-16	03:09:14
16	160629G3_16	1600783-02@20X OFPOL-MW-4-0616 0.125	30-Jun-16	03:21:52
17	160629G3_17	1600783-03@10X OFPOL-MW-8-0616 0.125	30-Jun-16	03:34:31
18	160629G3_18	1600783-04@10X OFPOL-MW-6-0616 0.125	30-Jun-16	03:47:11
19	160629G3_19	1600783-05@10X OFPOL-MW-3-0616 0.125	30-Jun-16	03:59:52
20	160629G3_20	1600783-06@10X OFPOL-MW-3P-0616 0.125	30-Jun-16	04:12:33
21	160629G3_21	1600783-07@10X OFPOL-MW-2-0616 0.125	30-Jun-16	04:25:17
22	160629G3_22	1600783-08@10X OF-MW13-0616 0.125	30-Jun-16	04:37:55
23	160629G3_23	1600783-09@10X OF-MW11-0616 0.125	30-Jun-16	04:50:33
24	160629G3_24	IPA	30-Jun-16	05:03:12
25	160629G3_25	ST160629G3-10 PFC CS3.5 16F2209	30-Jun-16	05:15:52
26	160629G3_26	IPA	30-Jun-16	05:28:34
27	160629G3_27	1600783-01@5X OFPOL-MW-7-0616 0.125 (A)	30-Jun-16	05:41:15
28	160629G3_28	1600783-02@5X OFPOL-MW-4-0616 0.125	30-Jun-16	05:53:55
29	160629G3_29	IPA	30-Jun-16	06:06:34
30	160629G3_30	ST160629G3-11 PFC CS3.5 16F2209	30-Jun-16	06:19:16
31	160629G3_31	IPA	30-Jun-16	06:31:58

(A) data not used BR 6/30/16

LC Calibration Standards Review Checklist Q1

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manaul Integrations	NA
Calibration ID:	STI6062963-10	L (M) H	NA ☐	☑	☑	☑	☑	☑	☐
Calibration ID:	1 - 11	L (M) H	☑	☐	☑	☐	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 6/29/16

Comments:

Reviewed By: PW 6/30/16
Initials/Date

Vista Analytical Laboratory Q1

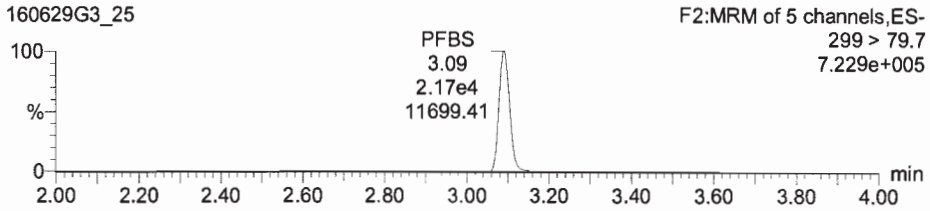
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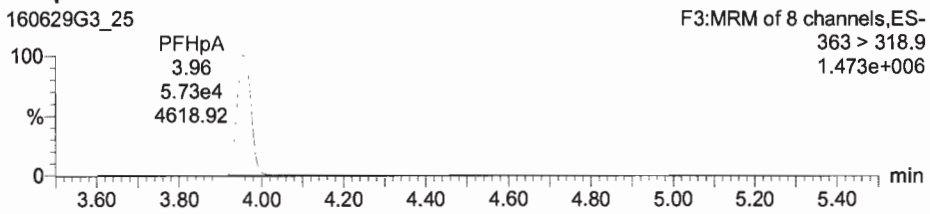
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Name: 160629G3_25, Date: 30-Jun-2016, Time: 05:15:52, ID: ST160629G3-10 PFC CS3.5 16F2209, Description: PFC CS3.5 16F2209 A

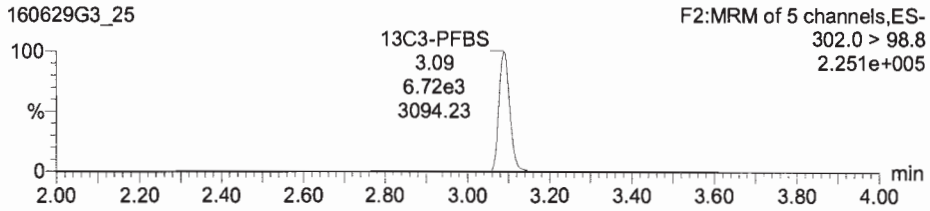
PFBS



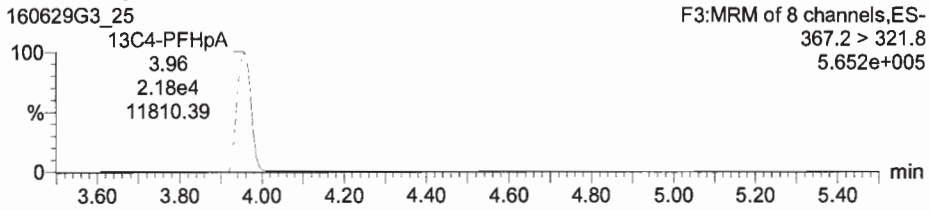
PFHpA



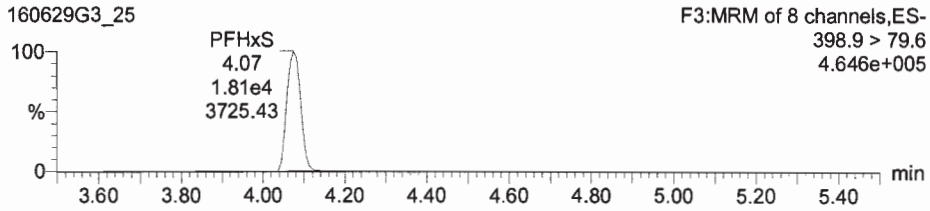
13C3-PFBS



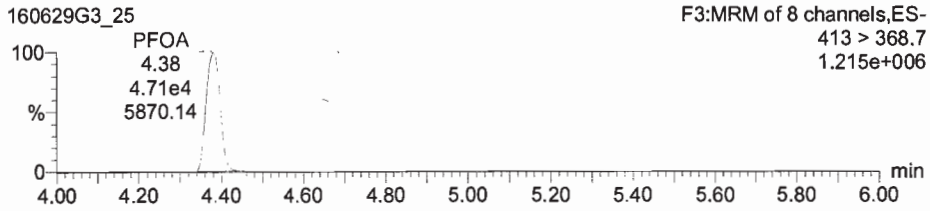
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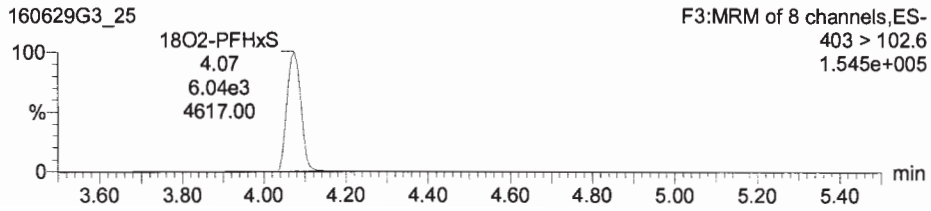
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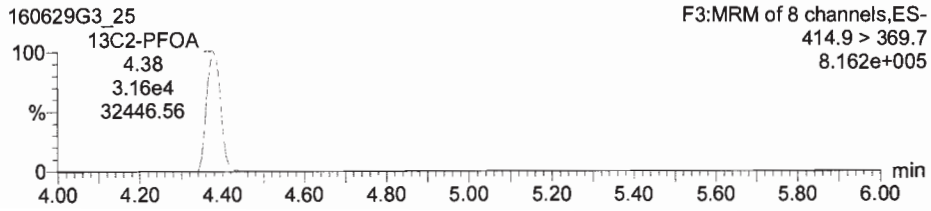
PFOA



18O2-PFHxS



13C2-PFOA

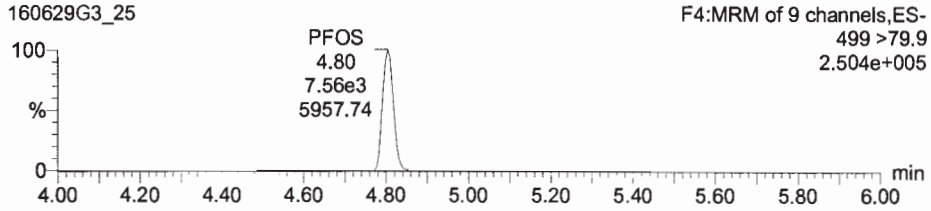


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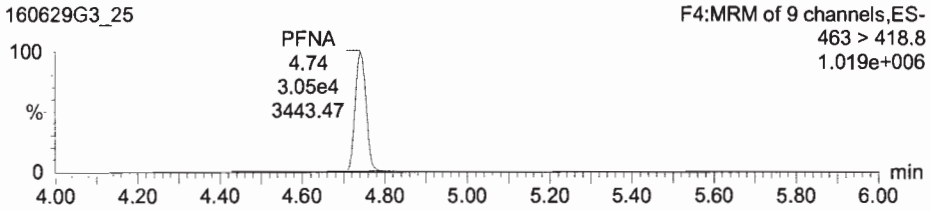
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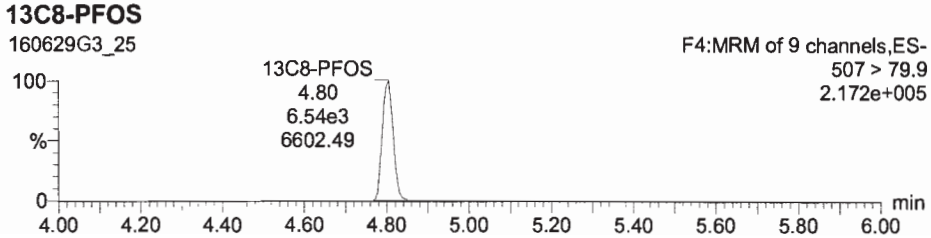
PFOS



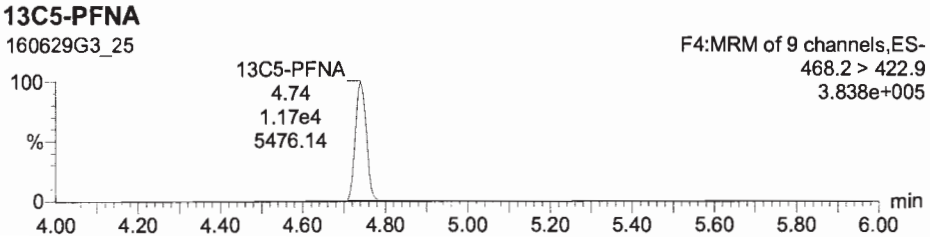
PFNA



13C8-PFOS



13C5-PFNA

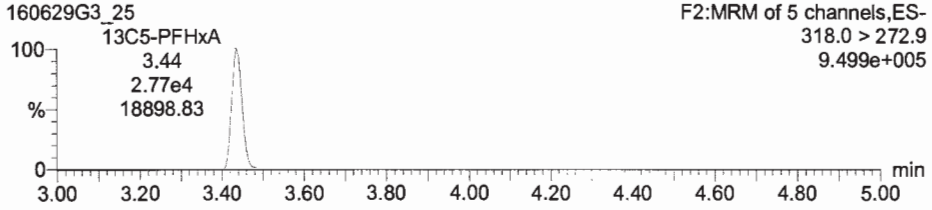


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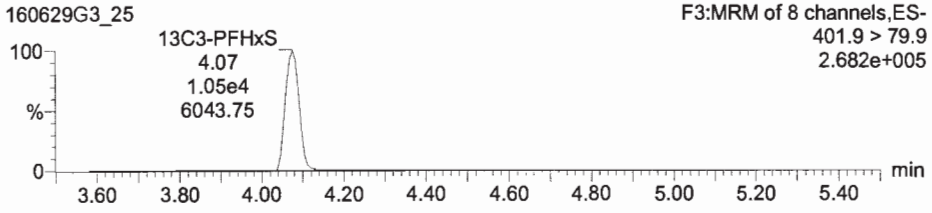
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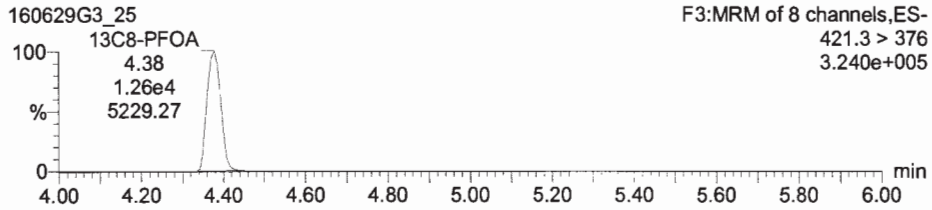
13C5-PFHxA



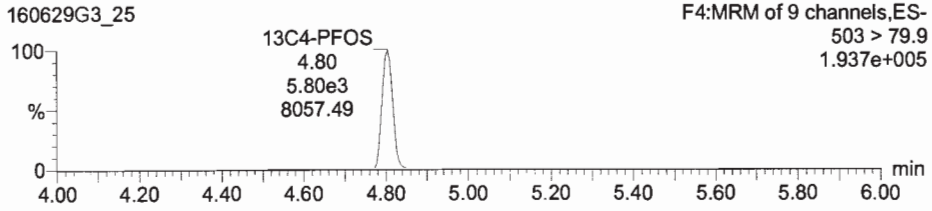
13C3-PFHxS



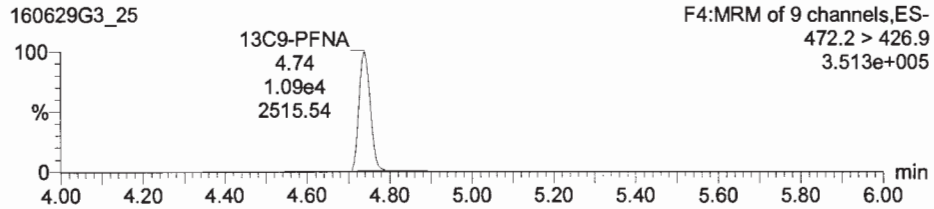
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_30.qld

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2	2	PFHpA	363 > 318.9	5.67e4	2.13e4		1.000	3.96	24.5	98.2
3	3	PFHxS	398.9 > 79.6	1.86e4	6.32e3		1.000	4.07	25.4	101.4
4	4	PFOA	413 > 368.7	4.70e4	3.03e4		1.000	4.38	24.1	96.3
5	5	PFOS	499 >79.9	6.71e3	6.58e3		1.000	4.80	20.3	81.1
6	6	PFNA	463 > 418.8	2.92e4	1.11e4		1.000	4.74	24.2	96.9
7	7	13C3-PFBS	302.0 > 98.8	6.59e3	2.93e4	0.241	1.000	3.09	11.7	93.4
8	8	13C4-PFHpA	367.2 > 321.8	2.13e4	2.93e4	0.744	1.000	3.96	12.3	98.1
9	9	18O2-PFHxS	403 > 102.6	6.32e3	1.07e4	0.572	1.000	4.07	12.8	102.8
10	10	13C2-PFOA	414.9 > 369.7	3.03e4	1.25e4	2.230	1.000	4.38	13.6	109.0
11	11	13C8-PFOS	507 > 79.9	6.58e3	5.95e3	1.108	1.000	4.80	12.5	99.8
12	12	13C5-PFNA	468.2 > 422.9	1.11e4	1.10e4	1.014	1.000	4.74	12.4	99.0
13	13	13C5-PFHxA	318.0 > 272.9	2.93e4	2.93e4	1.000	1.000	3.44	12.5	100.0
14	14	13C3-PFHxS	401.9 > 79.9	1.07e4	1.07e4	1.000	1.000	4.07	12.5	100.0
15	15	13C8-PFOA	421.3 > 376	1.25e4	1.25e4	1.000	1.000	4.38	12.5	100.0
16	16	13C4-PFOS	503 > 79.9	5.95e3	5.95e3	1.000	1.000	4.80	12.5	100.0
17	17	13C9-PFNA	472.2 > 426.9	1.10e4	1.10e4	1.000	1.000	4.74	12.5	100.0

lim
75-125
60-150
50-150

BR 6/30/16

PW 6/30/16

Vista Analytical Laboratory VG-9

Dataset: Untitled

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	160629G3_1	IPA	30-Jun-16	00:11:53
2	160629G3_2	ST160629G3-1 PFC CS0 16F2205	30-Jun-16	00:24:33
3	160629G3_3	ST160629G3-2 PFC CS1 16F2206	30-Jun-16	00:37:11
4	160629G3_4	ST160629G3-3 PFC CS2 16F2207	30-Jun-16	00:49:50
5	160629G3_5	ST160629G3-4 PFC CS3 16F2208	30-Jun-16	01:02:29
6	160629G3_6	ST160629G3-5 PFC CS3.5 16F2209	30-Jun-16	01:15:09
7	160629G3_7	ST160629G3-6 PFC CS4 16F2210	30-Jun-16	01:27:50
8	160629G3_8	ST160629G3-7 PFC CS4.5 16F2211	30-Jun-16	01:40:29
9	160629G3_9	ST160629G3-8 PFC CS5 16F2212	30-Jun-16	01:53:10
10	160629G3_10	ST160629~~G3-3~~PFC CS6 16F2213	30-Jun-16	02:05:50
11	160629G3_11	IPA 93.9 BR 6/30/16	30-Jun-16	02:18:32
12	160629G3_12	SS160629G3-1 PFC SSS 16F2214	30-Jun-16	02:31:15
13	160629G3_13	IPA	30-Jun-16	02:43:53
14	160629G3_14	1600783-01@25X OFPOL-MW-7-0616 0.125	30-Jun-16	02:56:35
15	160629G3_15	1600783-01@20X OFPOL-MW-7-0616 0.125 (A)	30-Jun-16	03:09:14
16	160629G3_16	1600783-02@20X OFPOL-MW-4-0616 0.125	30-Jun-16	03:21:52
17	160629G3_17	1600783-03@10X OFPOL-MW-8-0616 0.125	30-Jun-16	03:34:31
18	160629G3_18	1600783-04@10X OFPOL-MW-6-0616 0.125	30-Jun-16	03:47:11
19	160629G3_19	1600783-05@10X OFPOL-MW-3-0616 0.125	30-Jun-16	03:59:52
20	160629G3_20	1600783-06@10X OFPOL-MW-3P-0616 0.125	30-Jun-16	04:12:33
21	160629G3_21	1600783-07@10X OFPOL-MW-2-0616 0.125	30-Jun-16	04:25:17
22	160629G3_22	1600783-08@10X OF-MW13-0616 0.125	30-Jun-16	04:37:55
23	160629G3_23	1600783-09@10X OF-MW11-0616 0.125	30-Jun-16	04:50:33
24	160629G3_24	IPA	30-Jun-16	05:03:12
25	160629G3_25	ST160629G3-10 PFC CS3.5 16F2209	30-Jun-16	05:15:52
26	160629G3_26	IPA	30-Jun-16	05:28:34
27	160629G3_27	1600783-01@5X OFPOL-MW-7-0616 0.125 (A)	30-Jun-16	05:41:15
28	160629G3_28	1600783-02@5X OFPOL-MW-4-0616 0.125	30-Jun-16	05:53:55
29	160629G3_29	IPA	30-Jun-16	06:06:34
30	160629G3_30	ST160629G3-11 PFC CS3.5 16F2209	30-Jun-16	06:19:16
31	160629G3_31	IPA	30-Jun-16	06:31:58

(A) data not used BR 6/30/16

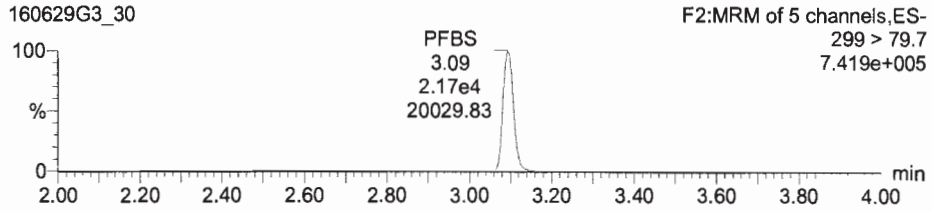
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Printed: Thursday, June 30, 2016 08:40:19 Pacific Daylight Time

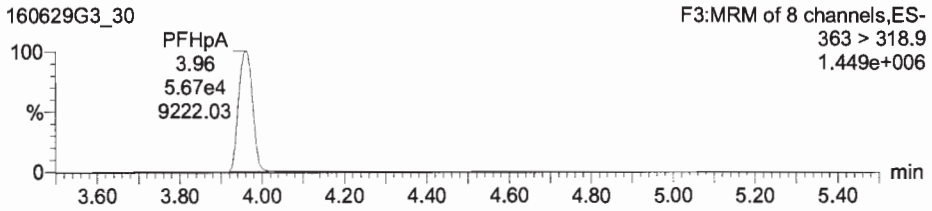
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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

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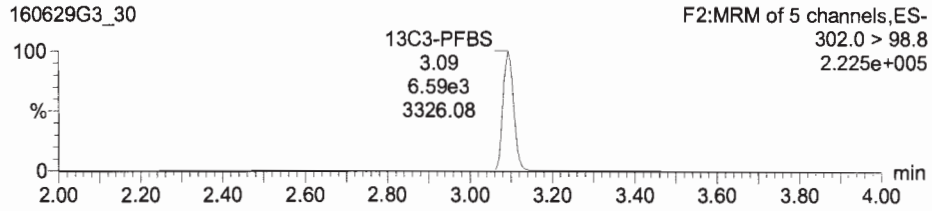
PFBS



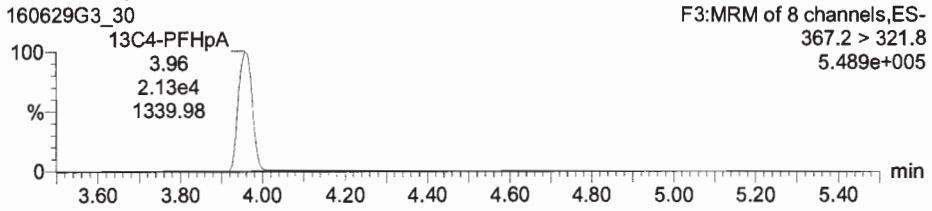
PFHpA



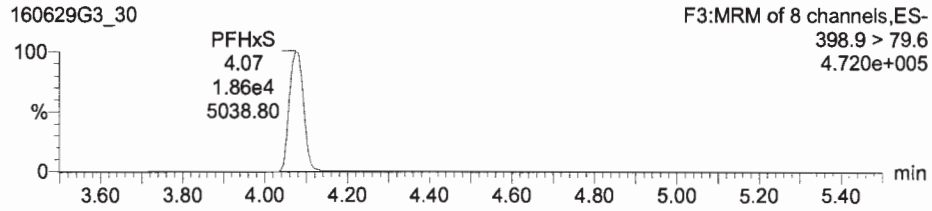
13C3-PFBS



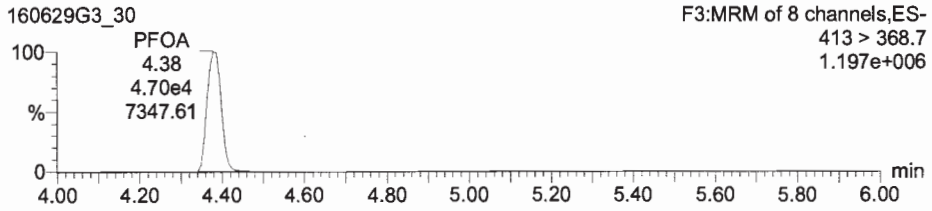
13C4-PFHpA



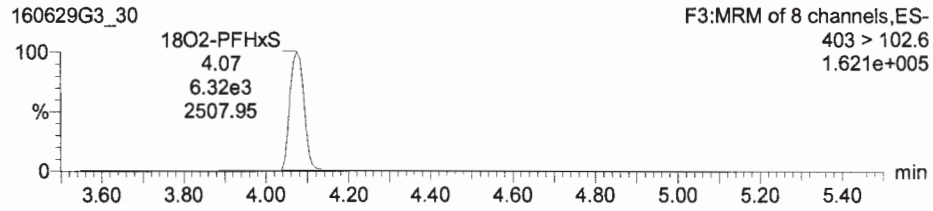
PFHxS



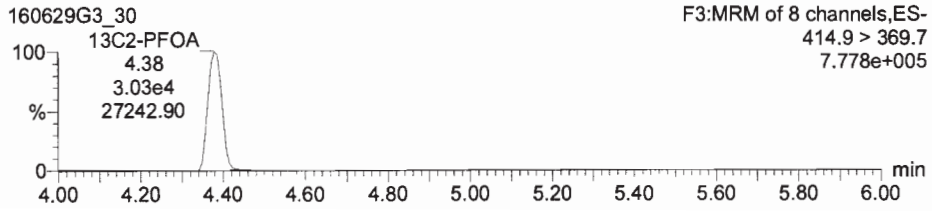
PFOA



18O2-PFHxS



13C2-PFOA

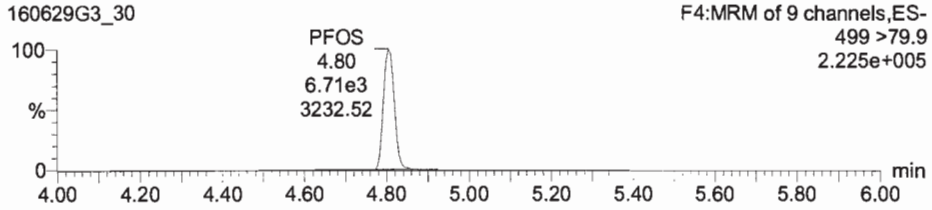


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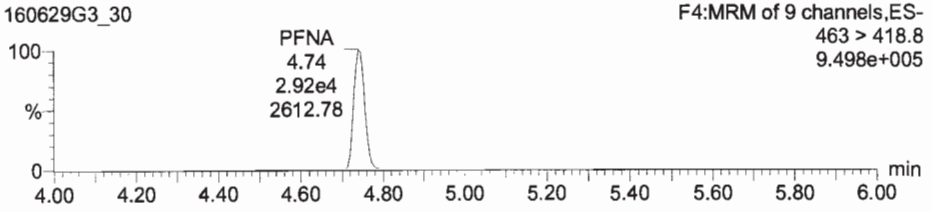
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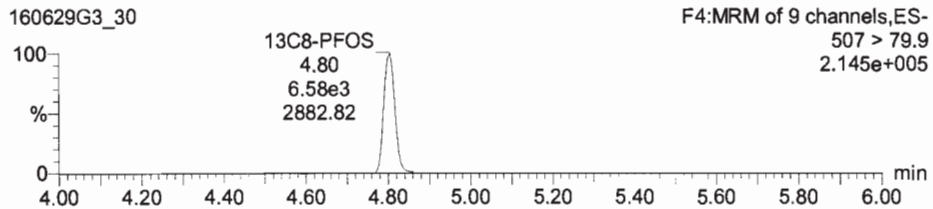
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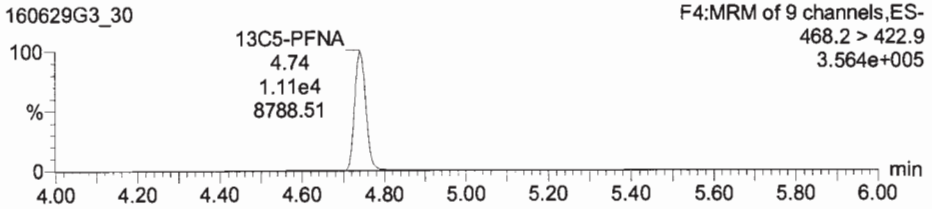
PFNA



13C8-PFOS



13C5-PFNA

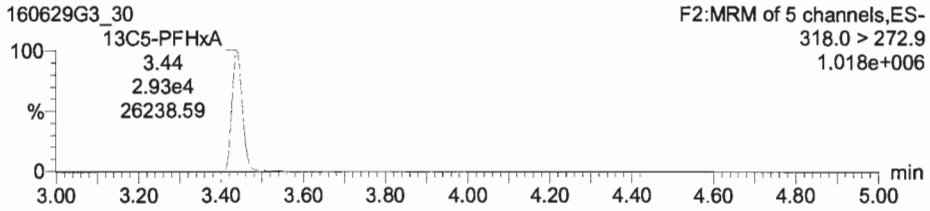


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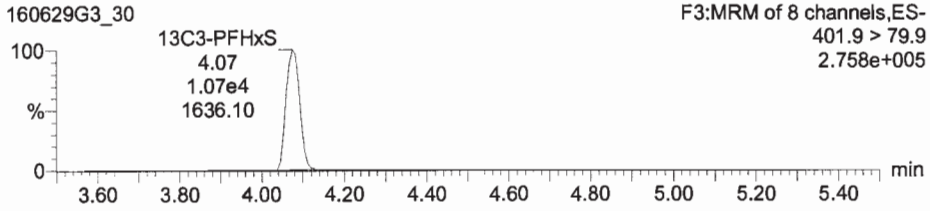
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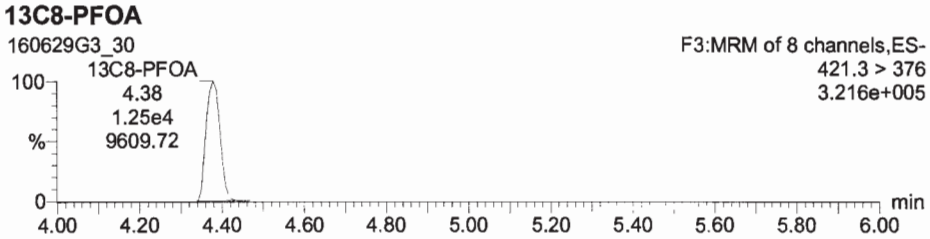
13C5-PFHxA



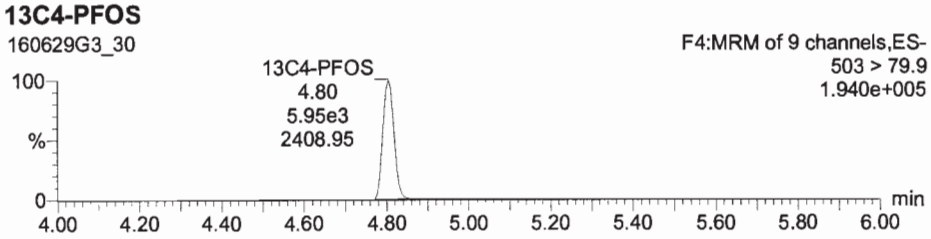
13C3-PFHxS



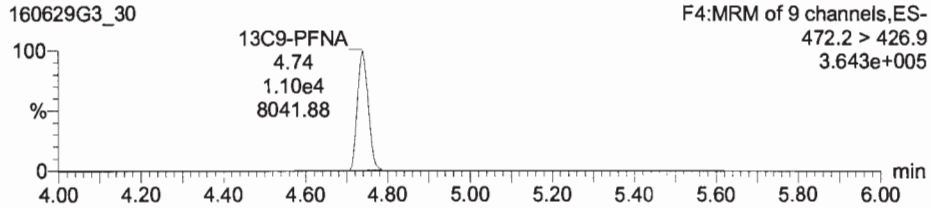
13C8-PFOA



13C4-PFOS



13C9-PFNA



INITIAL CALIBRATION

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

Last Altered: Monday, June 27, 2016 09:28:24 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:47:40 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999363
Calibration curve: 0.000771251 * x^2 + 0.81495 * x
Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	3.15	2.72e1	3.68e2	1.13	0.9994
2	2 160624G3_3	2.00	3.14	8.46e2	5.51e3	2.35	0.9994
3	3 160624G3_4	5.00	3.13	1.80e3	4.96e3	5.53	0.9994
4	4 160624G3_5	10.0	3.13	3.80e3	5.38e3	10.7	0.9994
5	5 160624G3_6	25.0	3.12	8.31e3	5.14e3	24.2	0.9994
6	6 160624G3_7	50.0	3.12	1.51e4	4.61e3	48.2	0.9994
7	7 160624G3_8	75.0	3.12	2.36e4	4.42e3	76.4	0.9994
8	8 160624G3_9	100	3.13	2.91e4	4.12e3	99.2	0.9994
9	9 160624G3_10	200	3.13	5.20e4	3.35e3	200	0.9994

(A) List 6

BR 6/27/16

PW 6/27/16

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999745
Calibration curve: -7.90706e-005 * x^2 + 1.19706 * x
Response type: Internal Std (Ref 8), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	4.01	1.32e2	1.46e3	0.941	0.9997
2	2 160624G3_3	2.00	4.01	4.36e3	2.11e4	2.16	0.9997
3	3 160624G3_4	5.00	3.99	1.07e4	2.07e4	5.37	0.9997
4	4 160624G3_5	10.0	3.99	2.04e4	2.03e4	10.5	0.9997
5	5 160624G3_6	25.0	3.99	4.57e4	1.97e4	24.2	0.9997
6	6 160624G3_7	50.0	3.99	8.92e4	1.88e4	49.7	0.9997
7	7 160624G3_8	75.0	3.99	1.24e5	1.72e4	75.6	0.9997
8	8 160624G3_9	100	3.99	1.52e5	1.61e4	99.3	0.9997
9	9 160624G3_10	200	3.99	2.33e5	1.23e4	200	0.9997

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

Last Altered: Monday, June 27, 2016 09:28:24 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:47:40 Pacific Daylight Time

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998214
Calibration curve: 0.00078716 * x^2 + 0.710801 * x
Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	4.12	1.44e1	3.17e2	0.796	0.9982
2	2 160624G3_3	2.00	4.12	5.48e2	4.33e3	2.22	0.9982
3	3 160624G3_4	5.00	4.11	1.45e3	4.27e3	5.93	0.9982
4	4 160624G3_5	10.0	4.11	3.11e3	4.51e3	11.9	0.9982
5	5 160624G3_6	25.0	4.10	6.07e3	4.20e3	24.8	0.9982
6	6 160624G3_7	50.0	4.10	1.13e4	3.66e3	51.4	0.9982
7	7 160624G3_8	75.0	4.10	1.72e4	3.86e3	72.5	0.9982
8	8 160624G3_9	100	4.10	2.10e4	3.45e3	96.7	0.9982
9	9 160624G3_10	200	4.10	3.99e4	2.84e3	202	0.9982

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998317
Calibration curve: -5.39987e-006 * x^2 + 0.747592 * x
Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	4.42	1.43e2	2.00e3	1.19	0.9983
2	2 160624G3_3	2.00	4.43	3.29e3	2.23e4	2.47	0.9983
3	3 160624G3_4	5.00	4.41	7.52e3	2.10e4	5.99	0.9983
4	4 160624G3_5	10.0	4.41	1.51e4	2.22e4	11.4	0.9983
5	5 160624G3_6	25.0	4.41	3.31e4	2.26e4	24.5	0.9983
6	6 160624G3_7	50.0	4.41	6.16e4	2.04e4	50.4	0.9983
7	7 160624G3_8	75.0	4.41	8.81e4	2.02e4	72.8	0.9983
8	8 160624G3_9	100	4.41	1.11e5	1.91e4	97.1	0.9983
9	9 160624G3_10	200	4.41	1.88e5	1.55e4	202	0.9983

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

Last Altered: Monday, June 27, 2016 09:28:24 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:47:40 Pacific Daylight Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.995857
Calibration curve: 9.68789e-005 * x^2 + 0.460781 * x
Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	4.85	1.63e1	1.11e3	0.400	0.9959
2	2 160624G3_3	2.00	4.85	9.17e2	9.22e3	2.70	0.9959
3	3 160624G3_4	5.00	4.84	2.15e3	9.07e3	6.42	0.9959
4	4 160624G3_5	10.0	4.84	4.39e3	9.57e3	12.4	0.9959
5	5 160624G3_6	25.0	4.83	7.52e3	8.65e3	23.5	0.9959
6	6 160624G3_7	50.0	4.83	1.52e4	8.14e3	50.3	0.9959
7	7 160624G3_8	75.0	4.83	2.14e4	7.78e3	73.5	0.9959
8	8 160624G3_9	100	4.83	2.77e4	7.61e3	96.8	0.9959
9	9 160624G3_10	200	4.83	5.35e4	6.89e3	202	0.9959

Compound name: PFNA
Coefficient of Determination: R^2 = 0.996493
Calibration curve: 0.000112045 * x^2 + 0.777568 * x
Response type: Internal Std (Ref 12), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160624G3_2	1.00	4.79	1.51e2	2.34e3	1.04	0.9965
2	2 160624G3_3	2.00	4.79	3.08e3	1.88e4	2.63	0.9965
3	3 160624G3_4	5.00	4.78	6.96e3	1.85e4	6.05	0.9965
4	4 160624G3_5	10.0	4.78	1.49e4	1.96e4	12.2	0.9965
5	5 160624G3_6	25.0	4.77	2.97e4	1.89e4	25.2	0.9965
6	6 160624G3_7	50.0	4.77	5.53e4	1.71e4	51.6	0.9965
7	7 160624G3_8	75.0	4.77	7.69e4	1.75e4	70.0	0.9965
8	8 160624G3_9	100	4.77	1.02e5	1.68e4	96.1	0.9965
9	9 160624G3_10	200	4.77	1.86e5	1.43e4	203	0.9965

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

Last Altered: Monday, June 27, 2016 09:28:24 Pacific Daylight Time
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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Compound name: 13C3-PFBS
Response Factor: 0.236078
RRF SD: 0.0095193, Relative SD: 4.03227
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	3.14	3.68e2	1.45e3	13.5	0.254
2	2 160624G3_3	12.5	3.14	5.51e3	2.26e4	12.9	0.244
3	3 160624G3_4	12.5	3.13	4.96e3	2.20e4	11.9	0.225
4	4 160624G3_5	12.5	3.13	5.38e3	2.23e4	12.8	0.241
5	5 160624G3_6	12.5	3.12	5.14e3	2.21e4	12.3	0.233
6	6 160624G3_7	12.5	3.12	4.61e3	1.95e4	12.5	0.236
7	7 160624G3_8	12.5	3.12	4.42e3	1.94e4	12.0	0.227
8	8 160624G3_9	12.5	3.12	4.12e3	1.82e4	12.0	0.226
9	9 160624G3_10	12.5	3.12	3.35e3	1.41e4	12.6	0.238

Compound name: 13C4-PFHpA
Response Factor: 0.922516
RRF SD: 0.0441573, Relative SD: 4.78662
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.01	1.46e3	1.45e3	13.7	1.01
2	2 160624G3_3	12.5	4.00	2.11e4	2.26e4	12.7	0.937
3	3 160624G3_4	12.5	3.99	2.07e4	2.20e4	12.7	0.940
4	4 160624G3_5	12.5	3.99	2.03e4	2.23e4	12.4	0.912
5	5 160624G3_6	12.5	3.99	1.97e4	2.21e4	12.1	0.895
6	6 160624G3_7	12.5	3.99	1.88e4	1.95e4	13.1	0.963
7	7 160624G3_8	12.5	3.99	1.72e4	1.94e4	12.0	0.886
8	8 160624G3_9	12.5	3.99	1.61e4	1.82e4	12.0	0.885
9	9 160624G3_10	12.5	3.99	1.23e4	1.41e4	11.8	0.874

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

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Compound name: 18O2-PFHxS
Response Factor: 0.471162
RRF SD: 0.0241608, Relative SD: 5.12792
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1	160624G3_2	12.5	4.12	3.17e2	6.57e2	12.8	0.483
2	2	160624G3_3	12.5	4.12	4.33e3	9.72e3	11.8	0.445
3	3	160624G3_4	12.5	4.11	4.27e3	8.96e3	12.6	0.477
4	4	160624G3_5	12.5	4.10	4.51e3	9.91e3	12.1	0.455
5	5	160624G3_6	12.5	4.10	4.20e3	9.23e3	12.1	0.455
6	6	160624G3_7	12.5	4.10	3.66e3	7.73e3	12.5	0.473
7	7	160624G3_8	12.5	4.10	3.86e3	7.34e3	14.0	0.526
8	8	160624G3_9	12.5	4.10	3.45e3	7.59e3	12.1	0.455
9	9	160624G3_10	12.5	4.10	2.84e3	6.03e3	12.5	0.471

Compound name: 13C2-PFOA
Response Factor: 1.08769
RRF SD: 0.0329828, Relative SD: 3.03237
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1	160624G3_2	12.5	4.43	2.00e3	1.86e3	12.3	1.07
2	2	160624G3_3	12.5	4.43	2.23e4	2.05e4	12.5	1.08
3	3	160624G3_4	12.5	4.41	2.10e4	2.05e4	11.8	1.03
4	4	160624G3_5	12.5	4.41	2.22e4	2.00e4	12.8	1.11
5	5	160624G3_6	12.5	4.41	2.26e4	2.05e4	12.6	1.10
6	6	160624G3_7	12.5	4.41	2.04e4	1.85e4	12.7	1.11
7	7	160624G3_8	12.5	4.41	2.02e4	1.78e4	13.1	1.14
8	8	160624G3_9	12.5	4.41	1.91e4	1.76e4	12.5	1.09
9	9	160624G3_10	12.5	4.41	1.55e4	1.47e4	12.2	1.06

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Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

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Compound name: 13C8-PFOS
Response Factor: 1.14202
RRF SD: 0.0421385, Relative SD: 3.68983
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.85	1.11e3	9.49e2	12.8	1.17
2	2 160624G3_3	12.5	4.84	9.22e3	8.43e3	12.0	1.09
3	3 160624G3_4	12.5	4.84	9.07e3	7.80e3	12.7	1.16
4	4 160624G3_5	12.5	4.83	9.57e3	8.32e3	12.6	1.15
5	5 160624G3_6	12.5	4.82	8.65e3	7.25e3	13.1	1.19
6	6 160624G3_7	12.5	4.82	8.14e3	6.83e3	13.1	1.19
7	7 160624G3_8	12.5	4.82	7.78e3	6.92e3	12.3	1.13
8	8 160624G3_9	12.5	4.83	7.61e3	6.76e3	12.3	1.13
9	9 160624G3_10	12.5	4.82	6.89e3	6.45e3	11.7	1.07

Compound name: 13C5-PFNA
Response Factor: 1.00842
RRF SD: 0.0253234, Relative SD: 2.5112
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.79	2.34e3	2.38e3	12.2	0.984
2	2 160624G3_3	12.5	4.79	1.88e4	1.83e4	12.7	1.03
3	3 160624G3_4	12.5	4.78	1.85e4	1.91e4	12.0	0.969
4	4 160624G3_5	12.5	4.77	1.96e4	1.93e4	12.6	1.02
5	5 160624G3_6	12.5	4.77	1.89e4	1.92e4	12.2	0.984
6	6 160624G3_7	12.5	4.77	1.71e4	1.69e4	12.5	1.01
7	7 160624G3_8	12.5	4.77	1.75e4	1.72e4	12.6	1.02
8	8 160624G3_9	12.5	4.77	1.68e4	1.60e4	13.0	1.05
9	9 160624G3_10	12.5	4.77	1.43e4	1.41e4	12.6	1.02

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	3.49	1.45e3	1.45e3	12.5	1.00
2	2 160624G3_3	12.5	3.48	2.26e4	2.26e4	12.5	1.00
3	3 160624G3_4	12.5	3.48	2.20e4	2.20e4	12.5	1.00
4	4 160624G3_5	12.5	3.47	2.23e4	2.23e4	12.5	1.00
5	5 160624G3_6	12.5	3.47	2.21e4	2.21e4	12.5	1.00
6	6 160624G3_7	12.5	3.47	1.95e4	1.95e4	12.5	1.00
7	7 160624G3_8	12.5	3.47	1.94e4	1.94e4	12.5	1.00
8	8 160624G3_9	12.5	3.47	1.82e4	1.82e4	12.5	1.00
9	9 160624G3_10	12.5	3.47	1.41e4	1.41e4	12.5	1.00

Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.12	6.57e2	6.57e2	12.5	1.00
2	2 160624G3_3	12.5	4.12	9.72e3	9.72e3	12.5	1.00
3	3 160624G3_4	12.5	4.11	8.96e3	8.96e3	12.5	1.00
4	4 160624G3_5	12.5	4.10	9.91e3	9.91e3	12.5	1.00
5	5 160624G3_6	12.5	4.10	9.23e3	9.23e3	12.5	1.00
6	6 160624G3_7	12.5	4.10	7.73e3	7.73e3	12.5	1.00
7	7 160624G3_8	12.5	4.10	7.34e3	7.34e3	12.5	1.00
8	8 160624G3_9	12.5	4.10	7.59e3	7.59e3	12.5	1.00
9	9 160624G3_10	12.5	4.10	6.03e3	6.03e3	12.5	1.00

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

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Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.43	1.86e3	1.86e3	12.5	1.00
2	2 160624G3_3	12.5	4.42	2.05e4	2.05e4	12.5	1.00
3	3 160624G3_4	12.5	4.41	2.05e4	2.05e4	12.5	1.00
4	4 160624G3_5	12.5	4.41	2.00e4	2.00e4	12.5	1.00
5	5 160624G3_6	12.5	4.41	2.05e4	2.05e4	12.5	1.00
6	6 160624G3_7	12.5	4.41	1.85e4	1.85e4	12.5	1.00
7	7 160624G3_8	12.5	4.41	1.78e4	1.78e4	12.5	1.00
8	8 160624G3_9	12.5	4.41	1.76e4	1.76e4	12.5	1.00
9	9 160624G3_10	12.5	4.41	1.47e4	1.47e4	12.5	1.00

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.85	9.49e2	9.49e2	12.5	1.00
2	2 160624G3_3	12.5	4.85	8.43e3	8.43e3	12.5	1.00
3	3 160624G3_4	12.5	4.84	7.80e3	7.80e3	12.5	1.00
4	4 160624G3_5	12.5	4.84	8.32e3	8.32e3	12.5	1.00
5	5 160624G3_6	12.5	4.82	7.25e3	7.25e3	12.5	1.00
6	6 160624G3_7	12.5	4.83	6.83e3	6.83e3	12.5	1.00
7	7 160624G3_8	12.5	4.83	6.92e3	6.92e3	12.5	1.00
8	8 160624G3_9	12.5	4.83	6.76e3	6.76e3	12.5	1.00
9	9 160624G3_10	12.5	4.83	6.45e3	6.45e3	12.5	1.00

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_CRV.qld

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160624G3_2	12.5	4.79	2.38e3	2.38e3	12.5	1.00
2	2 160624G3_3	12.5	4.79	1.83e4	1.83e4	12.5	1.00
3	3 160624G3_4	12.5	4.78	1.91e4	1.91e4	12.5	1.00
4	4 160624G3_5	12.5	4.77	1.93e4	1.93e4	12.5	1.00
5	5 160624G3_6	12.5	4.77	1.92e4	1.92e4	12.5	1.00
6	6 160624G3_7	12.5	4.77	1.69e4	1.69e4	12.5	1.00
7	7 160624G3_8	12.5	4.77	1.72e4	1.72e4	12.5	1.00
8	8 160624G3_9	12.5	4.77	1.60e4	1.60e4	12.5	1.00
9	9 160624G3_10	12.5	4.77	1.41e4	1.41e4	12.5	1.00

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Monday, June 27, 2016 11:48:46 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:49:02 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	160624G3_1	IPA	25-Jun-16	00:37:17
2	160624G3_2	ST160624G3-1 PFC CS0 16F2205	25-Jun-16	00:49:56
3	160624G3_3	ST160624G3-2 PFC CS1 16F2206	25-Jun-16	01:02:34
4	160624G3_4	ST160624G3-3 PFC CS2 16F2207	25-Jun-16	01:15:13
5	160624G3_5	ST160624G3-4 PFC CS3 16F2208	25-Jun-16	01:27:53
6	160624G3_6	ST160624G3-5 PFC CS3.5 16F2209	25-Jun-16	01:40:33
7	160624G3_7	ST160624G3-6 PFC CS4 16F2210	25-Jun-16	01:53:14
8	160624G3_8	ST160624G3-7 PFC CS4.5 16F2211	25-Jun-16	02:05:58
9	160624G3_9	ST160624G3-8 PFC CS5 16F2212	25-Jun-16	02:18:37
10	160624G3_10	ST160624G3-9 PFC CS6 16F2213	25-Jun-16	02:31:15
11	160624G3_11	IPA	25-Jun-16	02:43:53
12	160624G3_12	SS160624G3-1 PFC SSS 16F2214	25-Jun-16	02:56:33
13	160624G3_13	IPA	25-Jun-16	03:09:12
14	160624G3_14	B6F0136-BS1 OPR 0.125	25-Jun-16	03:21:53
15	160624G3_15	B6F0136-BSD1 LCS Dup 0.125	25-Jun-16	03:34:33
16	160624G3_16	IPA	25-Jun-16	03:47:14
17	160624G3_17	B6F0136-BLK1 Method Blank 0.125	25-Jun-16	03:59:55
18	160624G3_18	1600779-01RE1 Deicing Truck (420-105908-1...	25-Jun-16	04:12:41
19	160624G3_19	1600783-01 OFPOL-MW-7-0616 0.125	25-Jun-16	04:25:22
20	160624G3_20	1600783-02 OFPOL-MW-4-0616 0.125	25-Jun-16	04:38:00
21	160624G3_21	1600783-03 OFPOL-MW-8-0616 0.125	25-Jun-16	04:50:39
22	160624G3_22	1600783-04 OFPOL-MW-6-0616 0.125	25-Jun-16	05:03:18
23	160624G3_23	1600783-05 OFPOL-MW-3-0616 0.125	25-Jun-16	05:15:58
24	160624G3_24	1600783-06 OFPOL-MW-3P-0616 0.125	25-Jun-16	05:28:38
25	160624G3_25	1600783-07 OFPOL-MW-2-0616 0.125	25-Jun-16	05:41:19
26	160624G3_26	1600783-08 OF-MW13-0616 0.125	25-Jun-16	05:54:00
27	160624G3_27	1600783-09 OF-MW11-0616 0.125	25-Jun-16	06:06:38
28	160624G3_28	IPA	25-Jun-16	06:19:16
29	160624G3_29	ST160624G3-10 PFC CS3.5 16F2209	25-Jun-16	06:31:57
30	160624G3_30	IPA	25-Jun-16	06:44:38
31	160624G3_31	1600784-01 Field Blank Water 0.125	25-Jun-16	06:57:17

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Monday, June 27, 2016 11:48:46 Pacific Daylight Time
Printed: Monday, June 27, 2016 11:49:02 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	160624G3_32	1600786-01 RW-RES001-062016 0.125	25-Jun-16	07:09:56
33	160624G3_33	IPA	25-Jun-16	07:22:35
34	160624G3_34	ST160624G3-11 PFC CS3.5 16F2209	25-Jun-16	07:35:16
35	160624G3_35	IPA	25-Jun-16	07:47:56

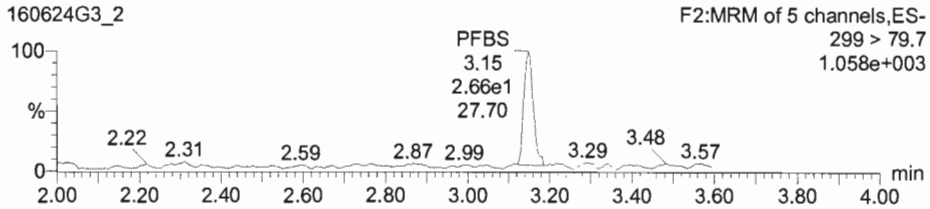
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Printed: Monday, June 27, 2016 09:19:58 Pacific Daylight Time

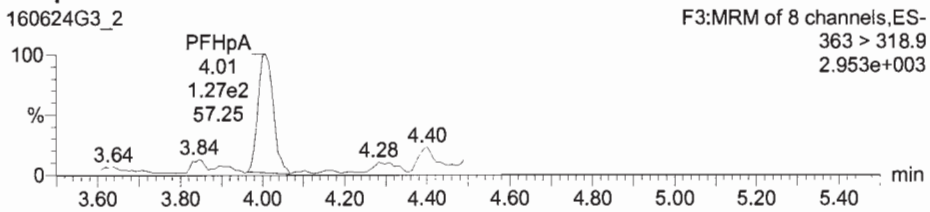
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Calibration: 27 Jun 2016 09:19:51

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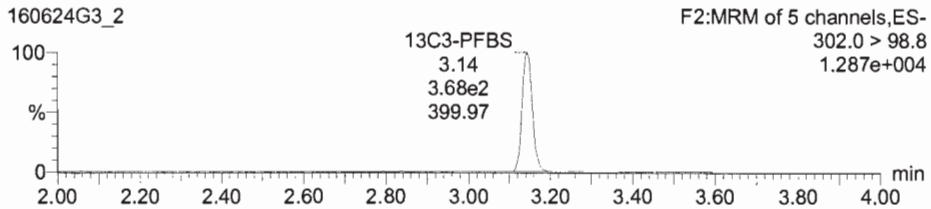
PFBS



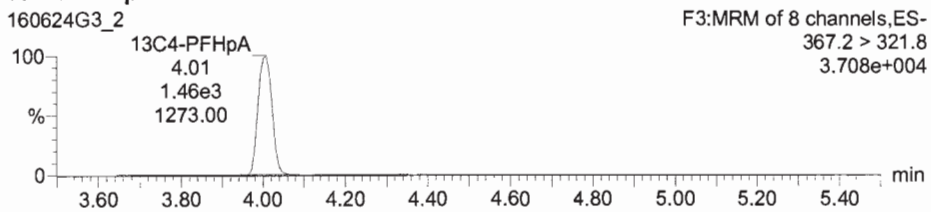
PFHpA



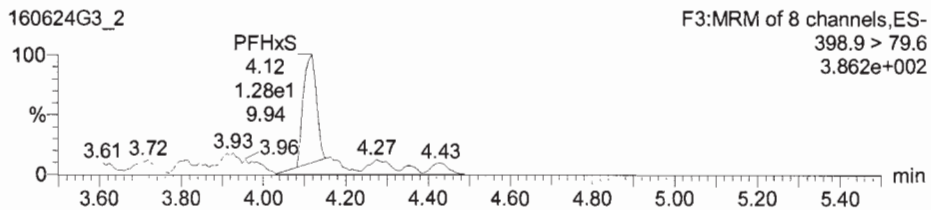
13C3-PFBS



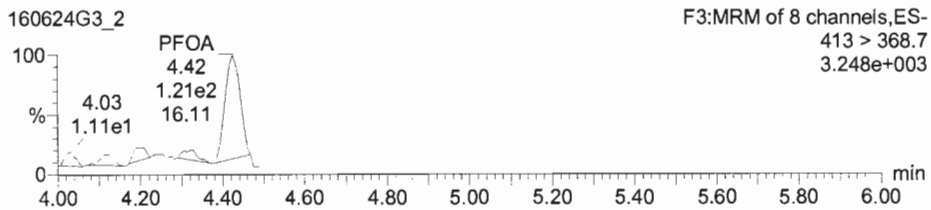
13C4-PFHpA



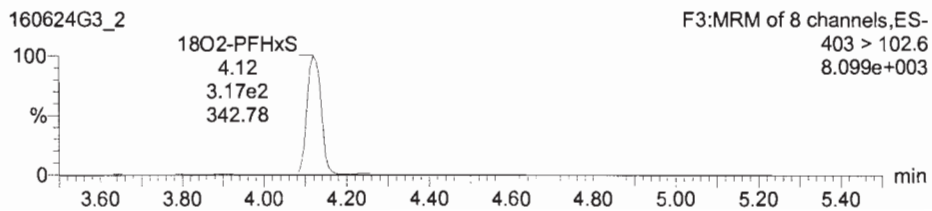
PFHxS



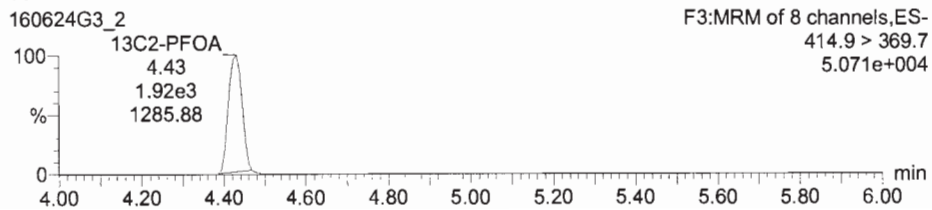
PFOA



18O2-PFHxS



13C2-PFOA

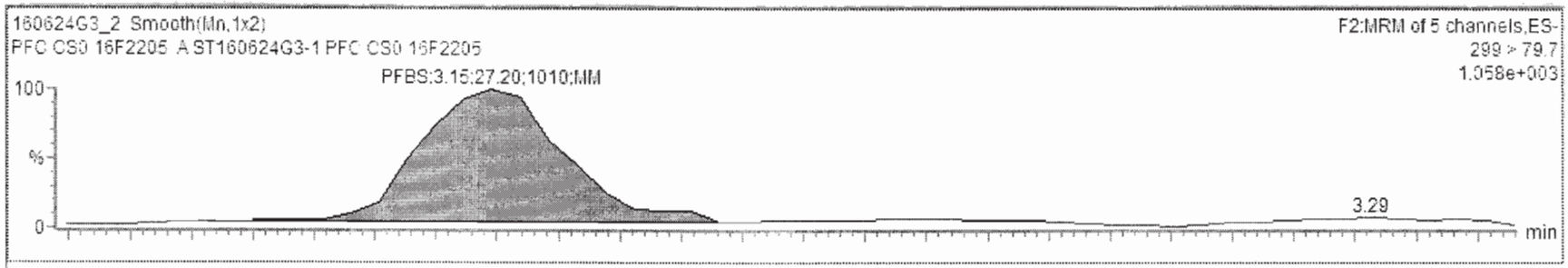


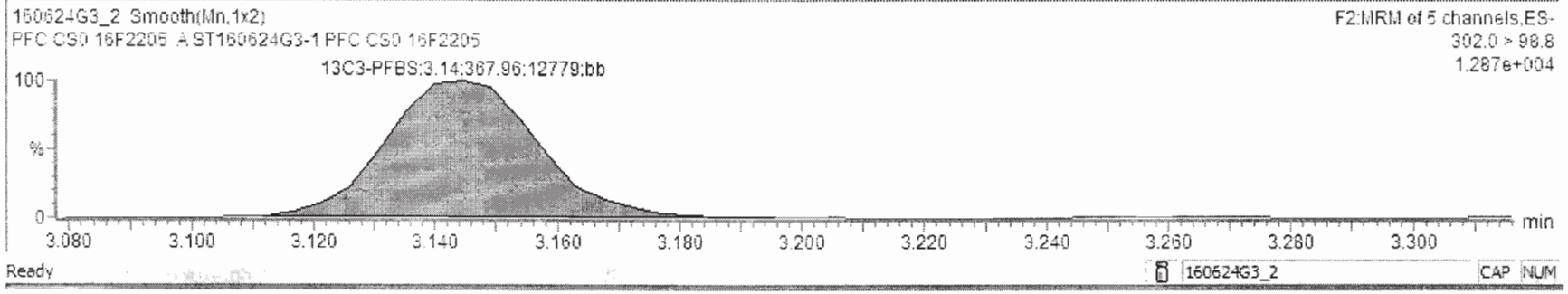
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160624G3_2 - ST160624G3-1 PFC CS0 16F2205 - PFC CS0 16F2205 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	2.72e1	0.924	0.924	1.000	3.15	1.13	113.3	0.1085626		0.9994
2	PFHpA	363 > 318.9	1.27e2	1.086	1.086	1.000	4.01	0.907	90.7	0.0358404		0.9997
3	PFHxS	398.9 > 79.6	1.28e1	0.506	0.506	1.000	4.12	0.712	71.2	0.1907130		0.9981
4	PFOA	413 > 368.7	1.21e2	0.790	0.790	1.000	4.42	1.06	105.8	0.1477045		0.9983
5	PFOS	499 >79.9	1.63e1	0.184	0.184	1.000	4.85	0.400	40.0	0.0169609		0.9959
6	PFNA	463 > 418.8	1.51e2	0.805	0.805	1.000	4.79	1.04	103.5	0.0423639		0.9965
7	13C3-PFBS	302.0 > 98.8	3.68e2	3.176	0.254	1.000	3.14	13.5	107.6	0.0849052	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.46e3	12.616	1.009	1.000	4.01	13.7	109.4	0.0197657	4.79	
9	18O2-PFHxS	403 > 102.6	3.17e2	6.033	0.483	1.000	4.12	12.8	102.4	0.0918237	5.13	
10	13C2-PFOA	414.9 > 369.7	1.92e3	13.428	1.074	1.000	4.43	12.4	98.8	0.0245873	3.05	
11	13C8-PFOS	507 > 79.9	1.11e3	14.563	1.165	1.000	4.85	12.8	102.0	0.3316538	3.69	
12	13C5-PFNA	468.2 > 422.9	2.34e3	12.294	0.984	1.000	4.79	12.2	97.5	0.0505145	2.51	
13	13C5-PFHxA	318.0 > 272.9	1.45e3	12.500	1.000	1.000	3.49	12.5	100.0	0.0212676	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	6.57e2	12.500	1.000	1.000	4.12	12.5	100.0	0.0649374	0.000000...	
15	13C8-PFOA	421.3 > 376	1.78e3	12.500	1.000	1.000	4.43	12.5	100.0	0.0146619	0.000	





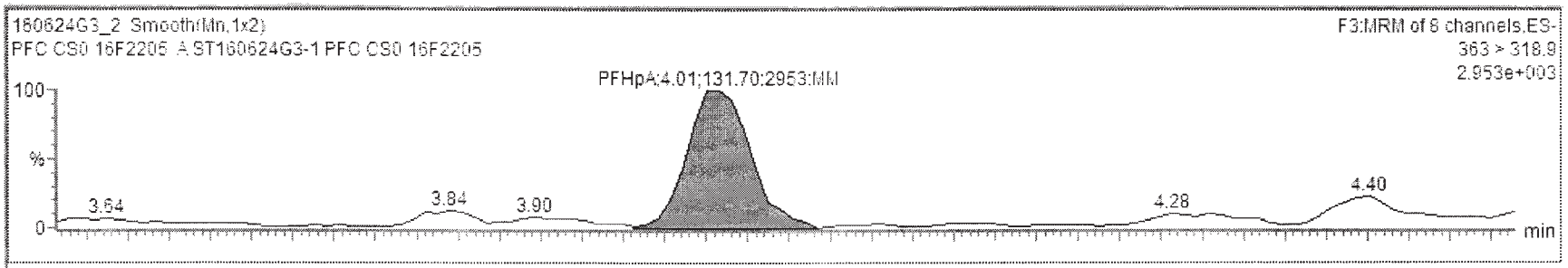
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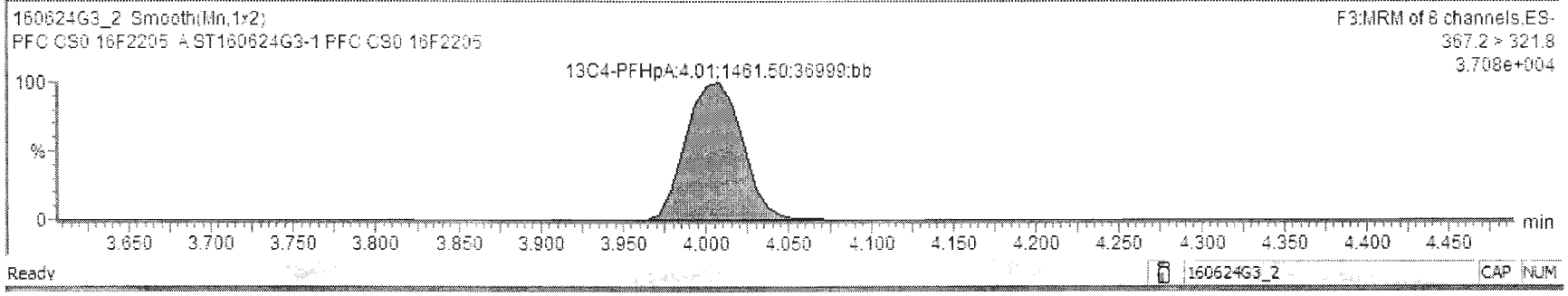
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_2 - ST160624G3-1 PFC CS0 16F2205 - PFC CS0 16F2205 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	2.72e1	0.924	0.924	1.000	3.15	1.13	113.3	0.1085626		0.9994
2	PFHpA	363 > 318.9	1.32e2	1.126	1.126	1.000	4.01	0.941	94.1	0.0358289		0.9997
3	PFHxS	398.9 > 79.6	1.26e1	0.506	0.506	1.000	4.12	0.712	71.2	0.1907130		0.9981
4	PFOA	413 > 368.7	1.21e2	0.790	0.790	1.000	4.42	1.06	105.8	0.1477045		0.9983
5	PFOS	499 >79.9	1.83e1	0.184	0.184	1.000	4.85	0.400	40.0	0.0169609		0.9959
6	PFNA	463 > 418.8	1.51e2	0.805	0.805	1.000	4.78	1.04	103.5	0.0423639		0.9965
7	13C3-PFBS	302.0 > 98.8	3.66e2	3.176	0.254	1.000	3.14	13.5	107.6	0.0849052	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.46e3	12.616	1.009	1.000	4.01	13.7	109.4	0.0197657	4.79	
9	18O2-PFHxS	403 > 102.6	3.17e2	6.033	0.483	1.000	4.12	12.8	102.4	0.0918237	5.13	
10	13C2-PFOA	414.9 > 369.7	1.92e3	13.428	1.074	1.000	4.43	12.4	98.8	0.0245873	3.05	
11	13C8-PFOS	507 > 79.9	1.11e3	14.583	1.165	1.000	4.85	12.8	102.0	0.3316538	3.69	
12	13C5-PFNA	468.2 > 422.9	2.34e3	12.294	0.984	1.000	4.79	12.2	97.5	0.0505145	2.51	
13	13C5-PFHxA	318.0 > 272.9	1.45e3	12.500	1.000	1.000	3.49	12.5	100.0	0.0212676	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	6.57e2	12.500	1.000	1.000	4.12	12.5	100.0	0.0649374	0.000000...	
15	13C8-PFOA	421.3 > 376	1.78e3	12.500	1.000	1.000	4.43	12.5	100.0	0.0146619	0.000	





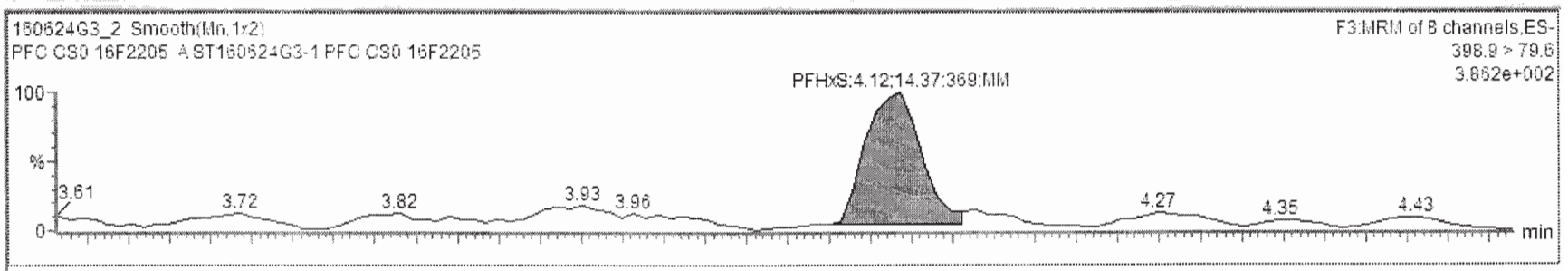
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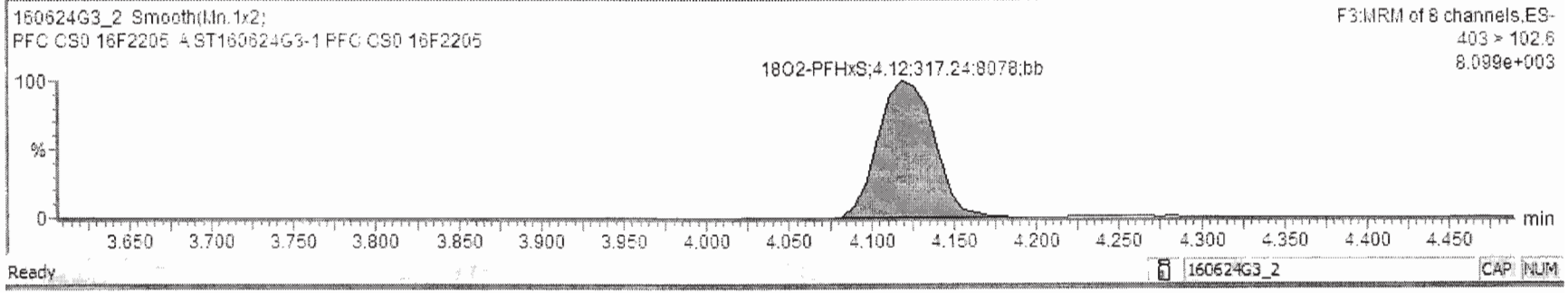
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_2 - ST160624G3-1 PFC CS0 16F2205 - PFC CS0 16F2205 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	2.72e1	0.924	0.924	1.000	3.15	1.13	113.3	0.1085626		0.9994
2	PFHpA	363 > 318.9	1.32e2	1.126	1.126	1.000	4.01	0.941	94.1	0.0358289		0.9997
3	PFHxS	398.9 > 79.6	1.44e1	0.566	0.566	1.000	4.12	0.796	79.6	0.1905613		0.9982
4	PFOA	413 > 368.7	1.21e2	0.790	0.790	1.000	4.42	1.06	105.8	0.1477045		0.9983
5	PFOS	499 > 79.9	1.63e1	0.184	0.184	1.000	4.85	0.400	40.0	0.0169609		0.9959
6	PFNA	463 > 418.8	1.51e2	0.805	0.805	1.000	4.79	1.04	103.5	0.0423639		0.9965
7	13C3-PFBS	302.0 > 98.8	3.68e2	3.176	0.254	1.000	3.14	13.5	107.6	0.0849052	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.46e3	12.616	1.009	1.000	4.01	13.7	109.4	0.0197657	4.79	
9	18O2-PFHxS	403 > 102.6	3.17e2	6.033	0.483	1.000	4.12	12.8	102.4	0.0918237	5.13	
10	13C2-PFOA	414.9 > 369.7	1.92e3	13.428	1.074	1.000	4.43	12.4	98.8	0.0245873	3.05	
11	13C8-PFOS	507 > 79.9	1.11e3	14.563	1.165	1.000	4.85	12.8	102.0	0.3316538	3.69	
12	13C5-PFNA	468.2 > 422.9	2.34e3	12.294	0.984	1.000	4.79	12.2	97.5	0.0505145	2.51	
13	13C5-PFHxA	318.0 > 272.9	1.45e3	12.500	1.000	1.000	3.49	12.5	100.0	0.0212676	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	6.57e2	12.500	1.000	1.000	4.12	12.5	100.0	0.0649374	0.000000...	
15	13C8-PFOA	421.2 > 376	1.78e3	12.500	1.000	1.000	4.43	12.5	100.0	0.0146619	0.000	



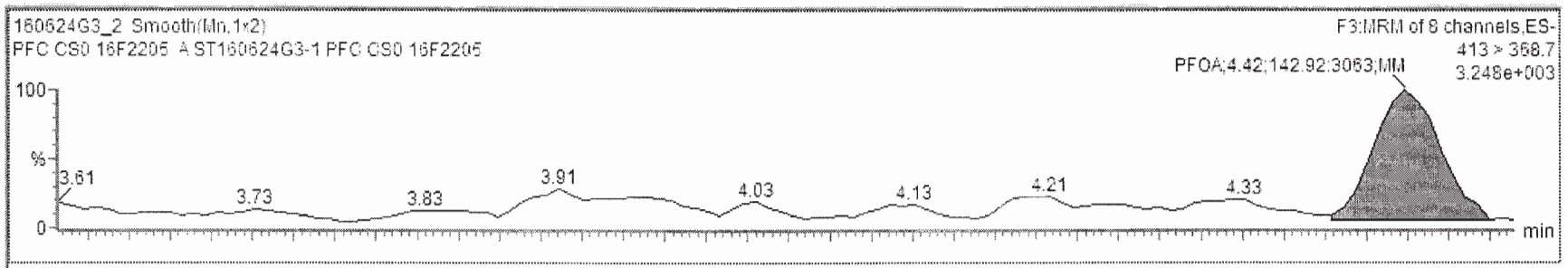


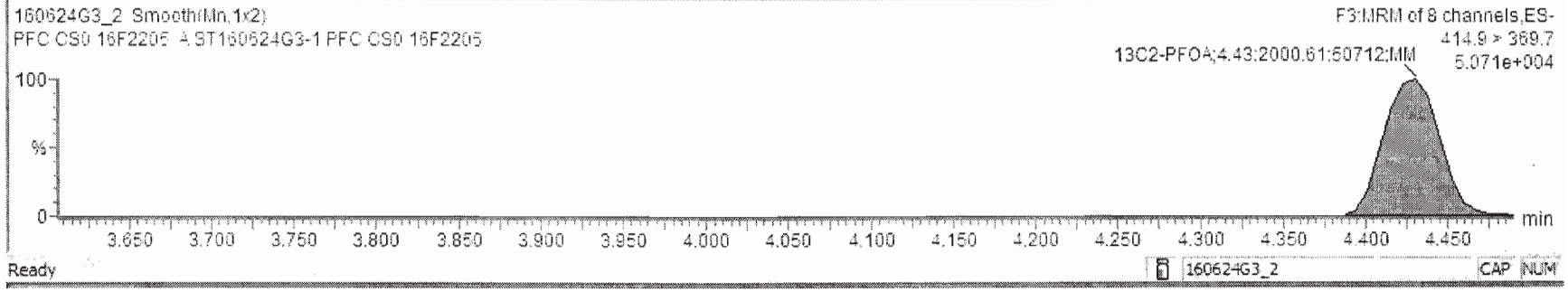
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_2 - ST160624G3-1 PFC CS0 16F2205 - PFC CS0 16F2205 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	2.72e1	0.924	0.924	1.000	3.15	1.13	113.3	0.1085626		0.9994
2	PFHpA	363 > 318.9	1.32e2	1.126	1.126	1.000	4.01	0.941	94.1	0.0358289		0.9997
3	PFHxS	398.9 > 79.6	1.44e1	0.566	0.566	1.000	4.12	0.796	79.6	0.1905813		0.9982
4	PFOA	413 > 368.7	1.43e2	0.893	0.893	1.000	4.42	1.19	119.4	0.1448808		0.9983
5	PFOS	499 >79.9	1.63e1	0.184	0.184	1.000	4.85	0.400	40.0	0.0169609		0.9959
6	PFNA	463 > 418.8	1.51e2	0.805	0.805	1.000	4.78	1.04	103.5	0.0423639		0.9965
7	13C3-PFBS	302.0 > 98.8	3.68e2	3.176	0.254	1.000	3.14	13.5	107.6	0.0849052	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.46e3	12.618	1.009	1.000	4.01	13.7	109.4	0.0197657	4.79	
9	18O2-PFHxS	403 > 102.6	3.17e2	6.033	0.483	1.000	4.12	12.8	102.4	0.0918237	5.13	
10	13C2-PFOA	414.9 > 369.7	2.00e3	14.017	1.121	1.000	4.43	12.8	102.7	0.0244694	3.17	
11	13C8-PFOS	507 > 79.9	1.11e3	14.563	1.165	1.000	4.85	12.8	102.0	0.3316538	3.69	
12	13C5-PFNA	468.2 > 422.9	2.34e3	12.294	0.984	1.000	4.79	12.2	97.5	0.0505145	2.51	
13	13C5-PFHxA	318.0 > 272.9	1.45e3	12.500	1.000	1.000	3.49	12.5	100.0	0.0212676	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	8.57e2	12.500	1.000	1.000	4.12	12.5	100.0	0.0649374	0.000000...	
15	13C8-PFOA	421.3 > 376	1.78e3	12.500	1.000	1.000	4.43	12.5	100.0	0.0146619	0.000	





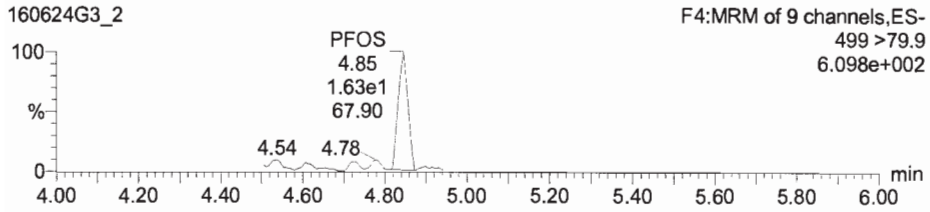
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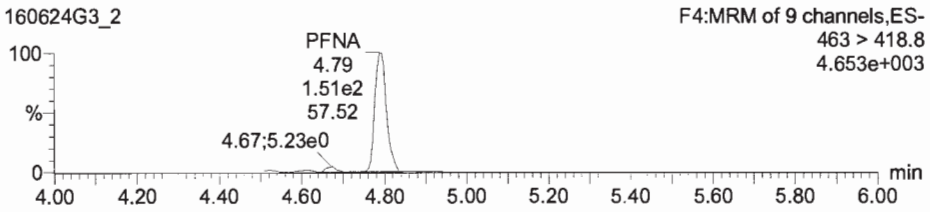
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Printed: Monday, June 27, 2016 09:19:58 Pacific Daylight Time

Name: 160624G3_2, Date: 25-Jun-2016, Time: 00:49:56, ID: ST160624G3-1 PFC CS0 16F2205, Description: PFC CS0 16F2205 A

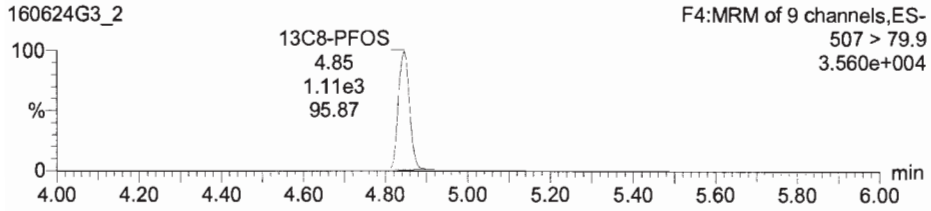
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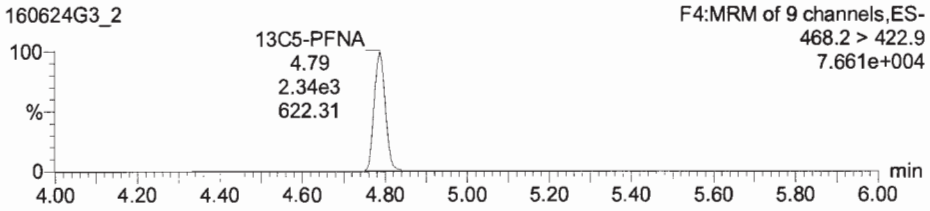
PFNA



13C8-PFOS



13C5-PFNA

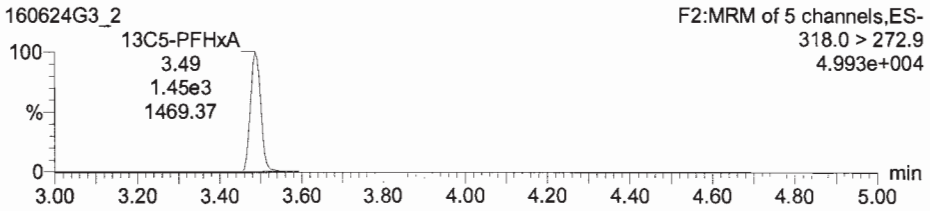


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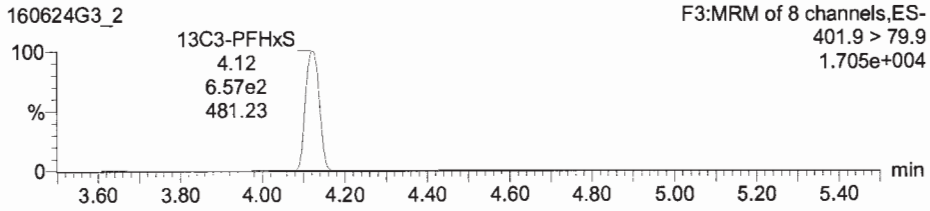
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Name: 160624G3_2, Date: 25-Jun-2016, Time: 00:49:56, ID: ST160624G3-1 PFC CS0 16F2205, Description: PFC CS0 16F2205 A

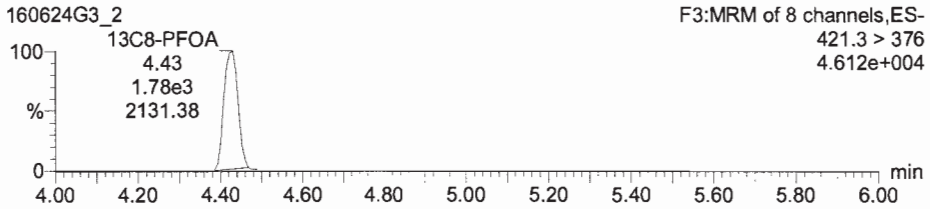
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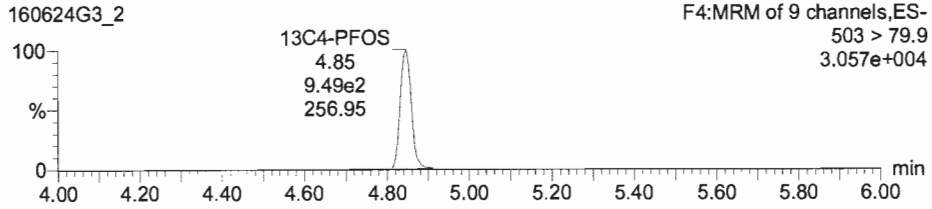
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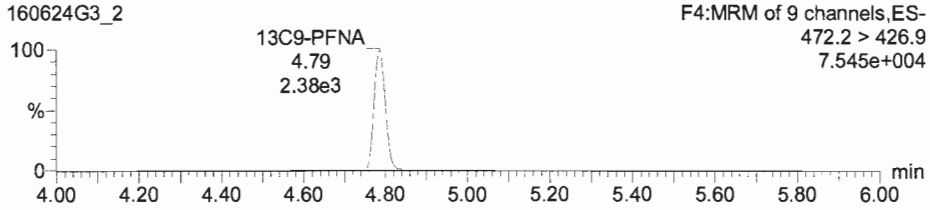
13C8-PFOA



13C4-PFOS



13C9-PFNA

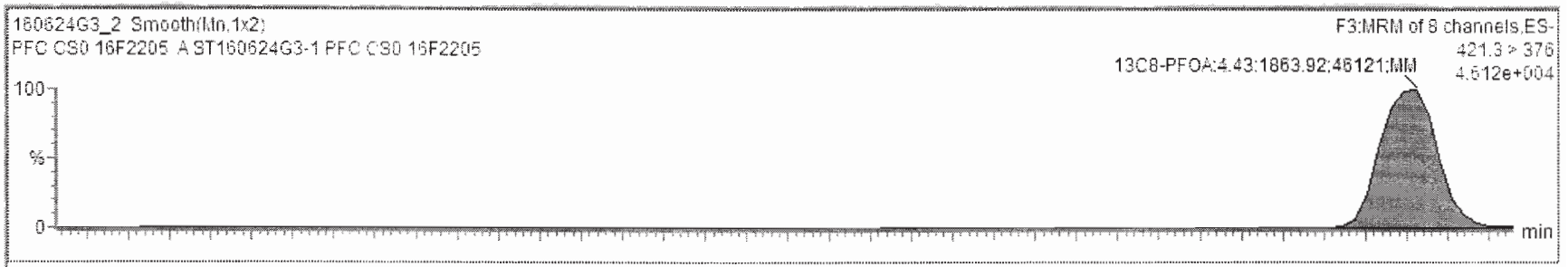


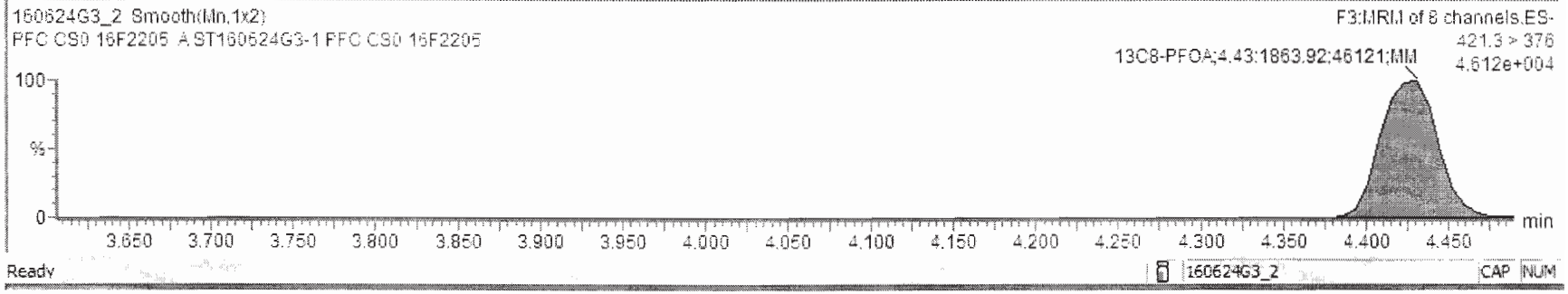
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_2 - ST160624G3-1 PFC CS0 16F2205 - PFC CS0 16F2205 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
4	PFOA	413 > 368.7	1.43e2	0.893	0.893	1.000	4.42	1.19	119.4	0.1448808		0.9983
5	PFOS	499 >79.9	1.63e1	0.184	0.184	1.000	4.85	0.400	40.0	0.0169609		0.9959
6	PFNA	463 > 418.8	1.51e2	0.805	0.805	1.000	4.79	1.04	103.5	0.0423639		0.9985
7	13C3-PFBS	302.0 > 98.8	3.68e2	3.176	0.254	1.000	3.14	13.5	107.6	0.0849052	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.48e3	12.616	1.009	1.000	4.01	13.7	109.4	0.0197657	4.79	
9	18O2-PFHxS	403 > 102.6	3.17e2	6.033	0.483	1.000	4.12	12.8	102.4	0.0918237	5.13	
10	13C2-PFOA	414.9 > 369.7	2.00e2	13.417	1.073	1.000	4.43	12.4	99.2	0.0242529	3.46	
11	13C8-PFOS	507 > 79.9	1.11e3	14.583	1.165	1.000	4.85	12.8	102.0	0.3318538	3.69	
12	13C5-PFNA	468.2 > 422.9	2.34e3	12.294	0.984	1.000	4.79	12.2	97.5	0.0505145	2.51	
13	13C5-PFHxA	318.0 > 272.9	1.45e3	12.500	1.000	1.000	3.49	12.5	100.0	0.0212676	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	6.57e2	12.500	1.000	1.000	4.12	12.5	100.0	0.0649374	0.000000...	
15	13C8-PFOA	421.3 > 376	1.86e3	12.500	1.000	1.000	4.43	12.5	100.0	0.0143996	0.000000...	
16	13C4-PFOS	503 > 79.9	8.49e2	12.500	1.000	1.000	4.85	12.5	100.0	0.1216210	0.000000...	
17	13C9-PFNA	472.2 > 426.9	2.38e3	12.500	1.000	1.000	4.79	12.5	100.0	0.0000000	0.000000...	
18	Total PFBS	299 > 79.7	2.72e1			1.000		1.13				0.0000





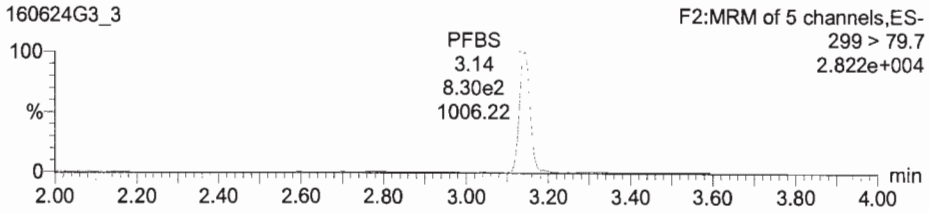
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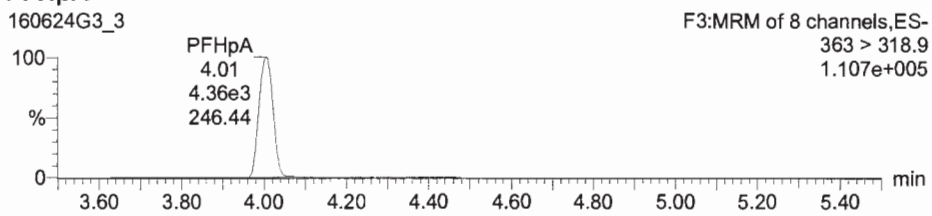
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Name: 160624G3_3, Date: 25-Jun-2016, Time: 01:02:34, ID: ST160624G3-2 PFC CS1 16F2206, Description: PFC CS1 16F2206 A

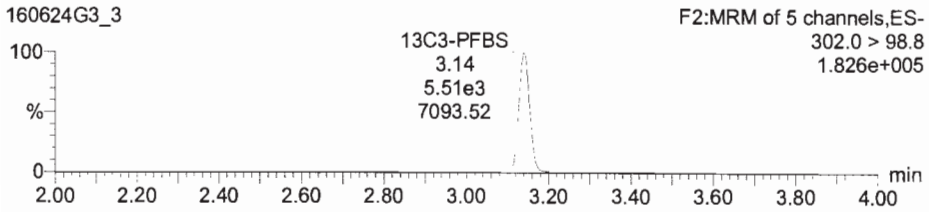
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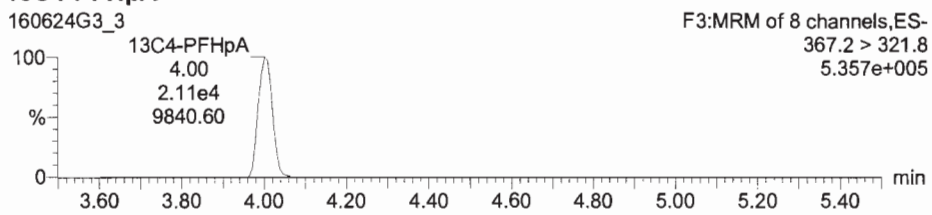
PFHpA



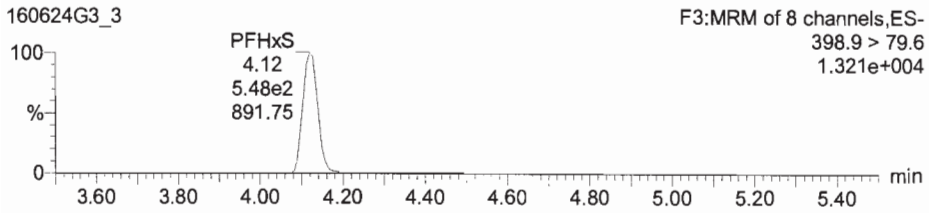
13C3-PFBS



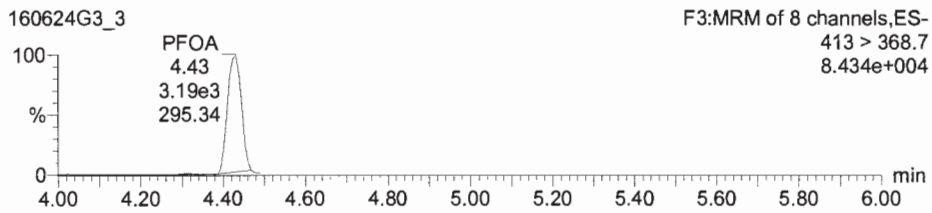
13C4-PFHpA



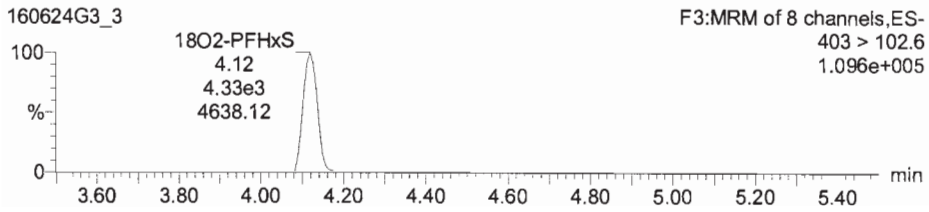
PFHxS



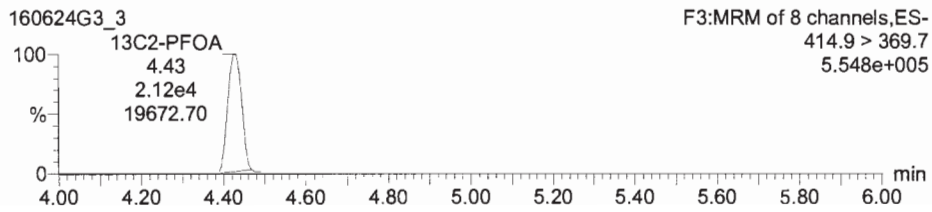
PFOA



18O2-PFHxS



13C2-PFOA

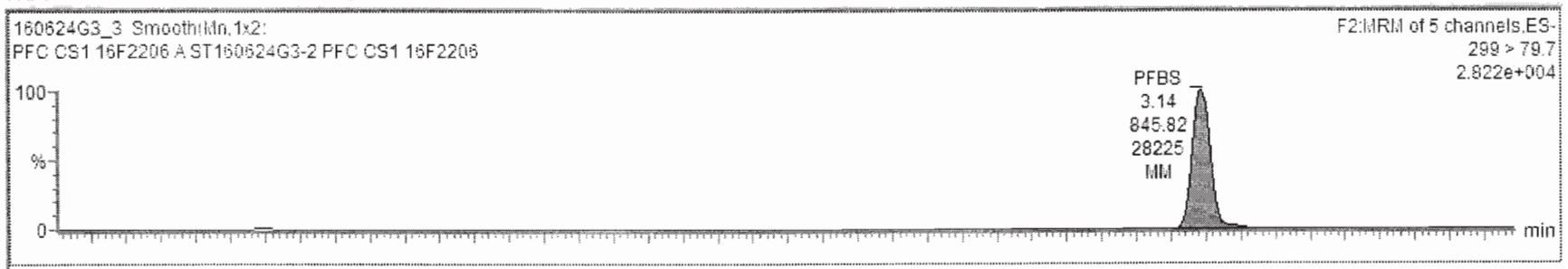


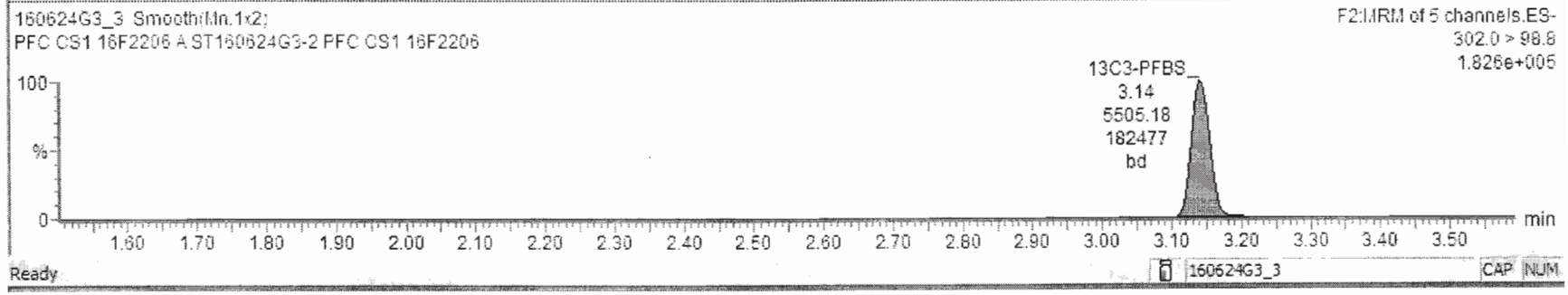
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_3 - ST160624G3-2 PFC CS1 16F2206 - PFC CS1 16F2206 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	3.46e2	1.921	0.960	1.000	3.14	2.35	117.6	0.0058872		0.9994
2	PFHpA	363 > 318.9	4.36e3	2.581	1.290	1.000	4.01	2.16	107.8	0.0218437		0.9997
3	PFHxS	398.9 > 79.8	5.48e2	1.583	0.791	1.000	4.12	2.22	111.1	0.0059326		0.9982
4	PFOA	413 > 368.7	3.19e3	1.877	0.939	1.000	4.43	2.51	125.5	0.0214010		0.9983
5	PFOS	499 >79.9	9.17e2	1.243	0.621	1.000	4.85	2.70	134.8	0.0140248		0.9959
6	PFNA	463 > 418.8	3.08e3	2.045	1.023	1.000	4.79	2.63	131.5	0.0089999		0.9965
7	13C3-PFBS	302.0 > 98.8	5.51e3	3.049	0.244	1.000	3.14	12.9	103.3	0.0045388	4.03	
8	13C4-PFHpA	367.2 > 321.8	2.11e4	11.710	0.937	1.000	4.00	12.7	101.5	0.0024546	4.79	
9	18O2-PFHxS	403 > 102.6	4.33e3	5.568	0.445	1.000	4.12	11.8	94.5	0.0063727	5.13	
10	13C2-PFOA	414.9 > 369.7	2.12e4	12.933	1.035	1.000	4.43	12.0	95.6	0.0015612	3.46	
11	13C8-PFOS	507 > 79.9	9.22e3	13.682	1.095	1.000	4.84	12.0	95.8	0.0000000	3.69	
12	13C5-PFNA	468.2 > 422.9	1.88e4	12.847	1.028	1.000	4.79	12.7	101.9	0.0167511	2.51	
13	13C5-PFHxA	318.0 > 272.9	2.26e4	12.500	1.000	1.000	3.48	12.5	100.0	0.0011060	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	9.72e3	12.500	1.000	1.000	4.12	12.5	100.0	0.0071688	0.000000...	
15	13C8-PFOA	421.3 > 376	2.05e4	12.500	1.000	1.000	4.42	12.5	100.0	0.0007513	0.000000...	



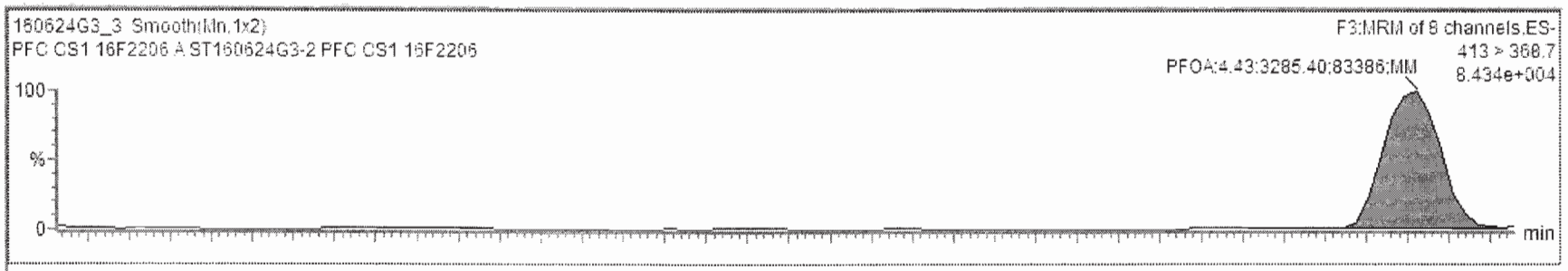


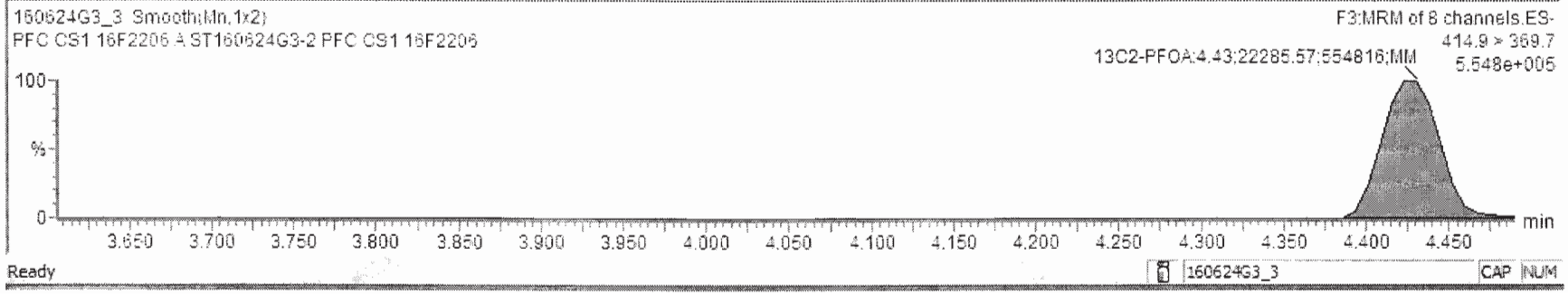
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_3 - ST160624G3-2 PFC CS1 16F2206 - PFC CS1 16F2206 A

	Name	Trace	Area	Response	RRF	Wt/VoL	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
1	PFBS	299 > 79.7	8.48e2	1.921	0.960	1.000	3.14	2.35	117.6	0.0058872		0.9994
2	PFHpA	363 > 318.9	4.36e3	2.581	1.290	1.000	4.01	2.16	107.8	0.0218437		0.9997
3	PFHxS	398.9 > 79.8	5.48e2	1.583	0.791	1.000	4.12	2.22	111.1	0.0059326		0.9982
4	PFOA	413 > 368.7	3.29e3	1.843	0.921	1.000	4.43	2.47	123.3	0.0209849		0.9983
5	PFOS	499 >79.9	9.17e2	1.243	0.621	1.000	4.85	2.70	134.8	0.0140248		0.9959
6	PFNA	463 > 418.8	3.08e3	2.045	1.023	1.000	4.79	2.63	131.5	0.0089999		0.9965
7	13C3-PFBS	302.0 > 98.8	5.51e3	3.049	0.244	1.000	3.14	12.9	103.3	0.0045388	4.03	
8	13C4-PFHpA	367.2 > 321.8	2.11e4	11.710	0.937	1.000	4.00	12.7	101.5	0.0024546	4.79	
9	18O2-PFHxS	403 > 102.6	4.33e3	5.568	0.445	1.000	4.12	11.8	94.5	0.0063727	5.13	
10	13C2-PFOA	414.9 > 369.7	2.23e4	13.580	1.086	1.000	4.43	12.5	99.9	0.0015530	3.03	
11	13C8-PFOS	507 > 79.9	9.22e3	13.682	1.095	1.000	4.84	12.0	95.8	0.0000000	3.69	
12	13C5-PFNA	468.2 > 422.9	1.88e4	12.647	1.026	1.000	4.79	12.7	101.9	0.0167511	2.51	
13	13C5-PFHxA	318.0 > 272.9	2.26e4	12.500	1.000	1.000	3.48	12.5	100.0	0.0011060	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	9.72e3	12.500	1.000	1.000	4.12	12.5	100.0	0.0071888	0.000000...	
15	13C8-PFOA	421.3 > 376	2.05e4	12.500	1.000	1.000	4.42	12.5	100.0	0.0007513	0.000000...	





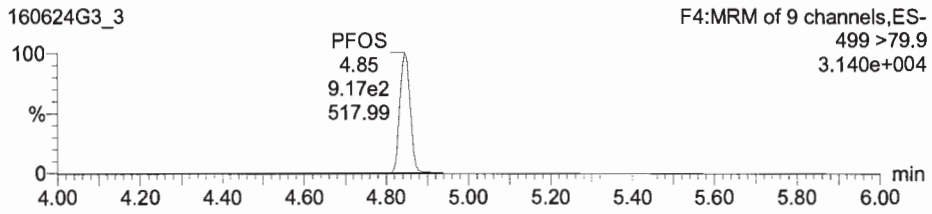
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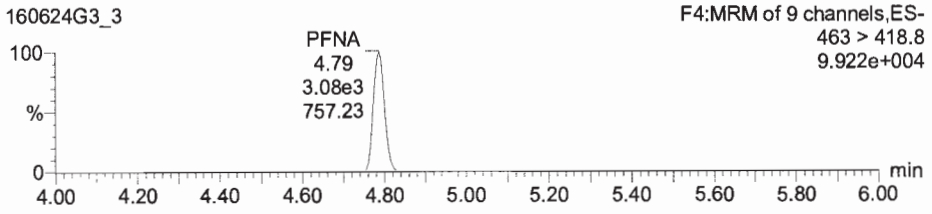
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Printed: Monday, June 27, 2016 09:19:58 Pacific Daylight Time

Name: 160624G3_3, Date: 25-Jun-2016, Time: 01:02:34, ID: ST160624G3-2 PFC CS1 16F2206, Description: PFC CS1 16F2206 A

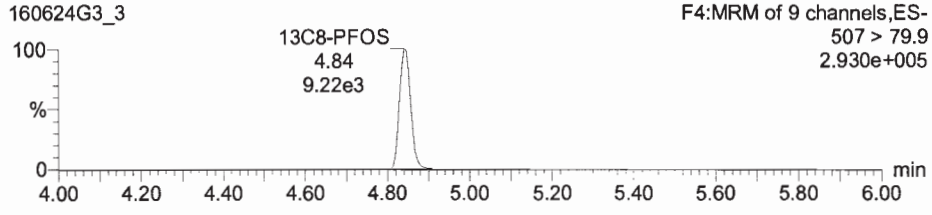
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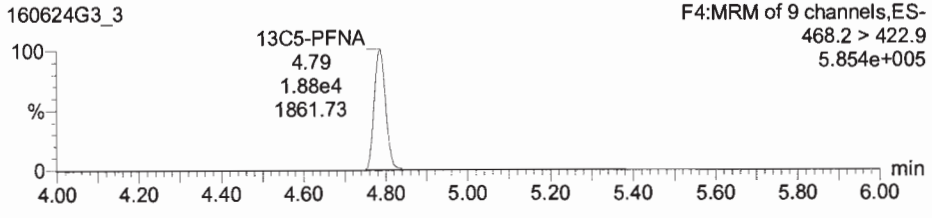
PFNA



13C8-PFOS



13C5-PFNA

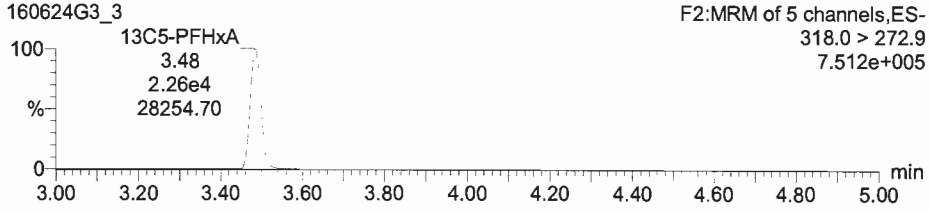


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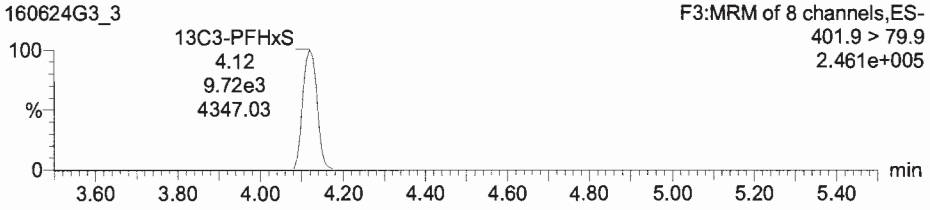
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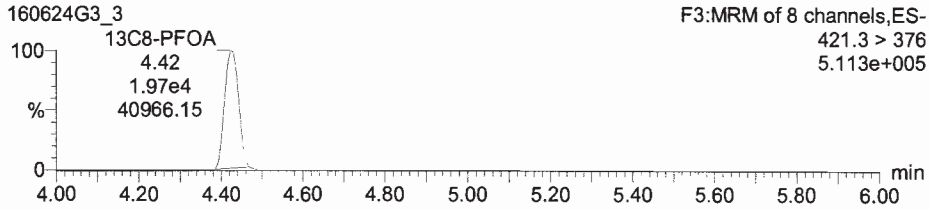
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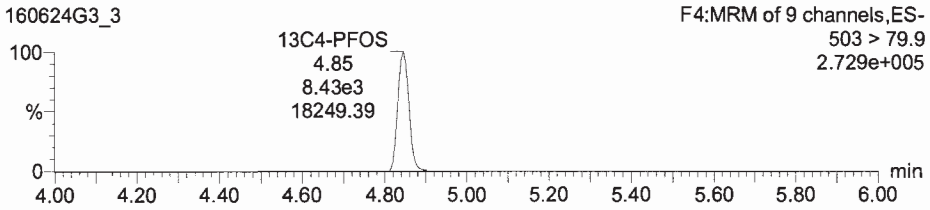
13C3-PFHxS



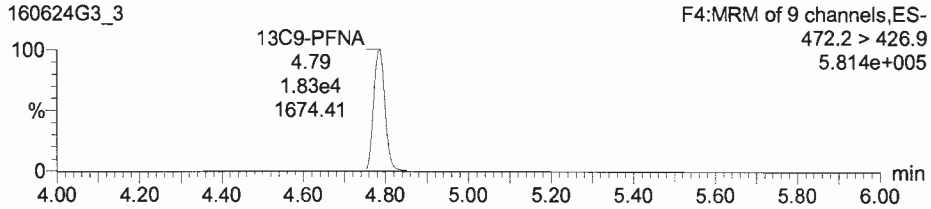
13C8-PFOA



13C4-PFOS



13C9-PFNA

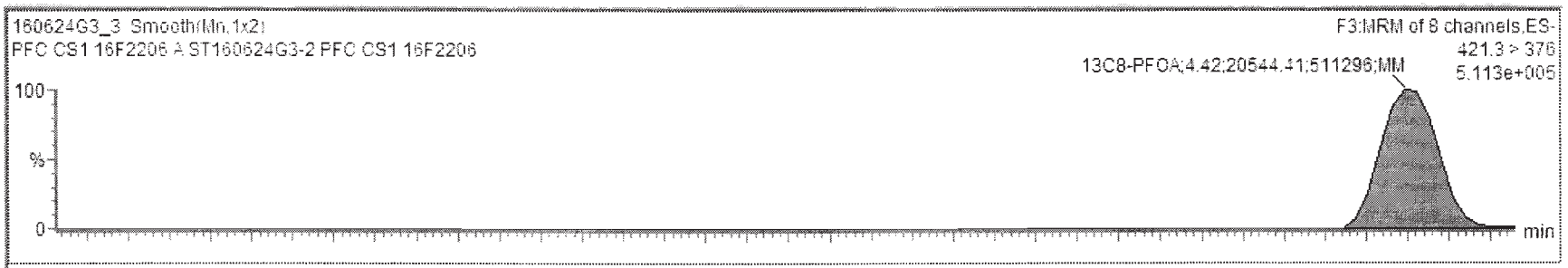


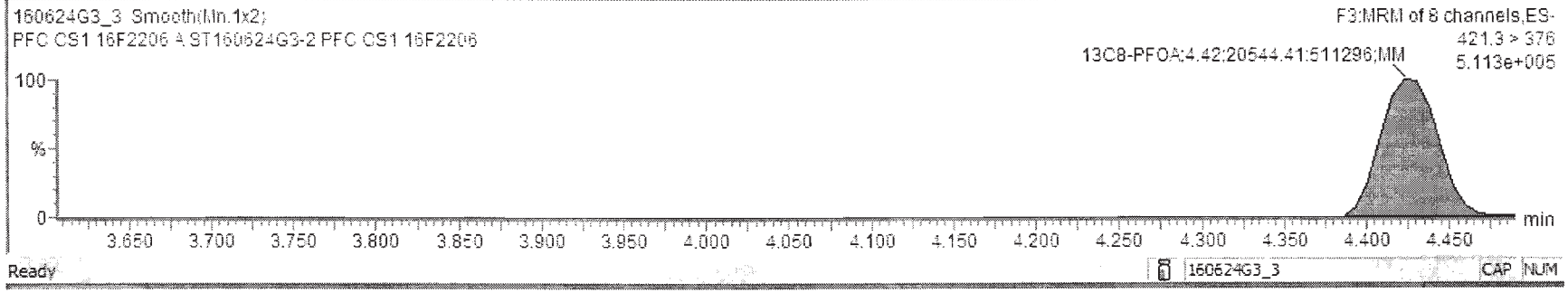
TargetLynx - 160624G3_CRV.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160624G3_3 - ST160624G3-2 PFC CS1 16F2206 - PFC CS1 16F2206 A

	Name	Trace	Area	Response	RRF	Wt/Vol	RT	Conc.	%Rec	DL	%RSD	Coeff. Of D...
7	13C3-PFBS	302.0 > 98.8	5.51e3	3.049	0.244	1.000	3.14	12.9	103.3	0.0045388	4.03	
8	13C4-PFHpA	367.2 > 321.8	2.11e4	11.710	0.937	1.000	4.00	12.7	101.5	0.0024546	4.79	
9	18O2-PFHxS	403 > 102.6	4.33e3	5.568	0.445	1.000	4.12	11.8	94.5	0.0063727	5.13	
10	13C2-PFOA	414.9 > 369.7	2.23e4	13.559	1.085	1.000	4.43	12.5	99.7	0.0015532	3.03	
11	13C8-PFOS	507 > 79.9	9.22e3	13.682	1.095	1.000	4.84	12.0	95.8	0.0000000	3.69	
12	13C5-PFNA	468.2 > 422.9	1.88e4	12.847	1.028	1.000	4.78	12.7	101.9	0.0167511	2.51	
13	13C5-PFHxA	318.0 > 272.9	2.26e4	12.500	1.000	1.000	3.48	12.5	100.0	0.0011060	0.000000...	
14	13C3-PFHxS	401.9 > 79.9	9.72e3	12.500	1.000	1.000	4.12	12.5	100.0	0.0071888	0.000000...	
15	13C8-PFOA	421.3 > 376	2.05e4	12.500	1.000	1.000	4.42	12.5	100.0	0.0007513	0.000000...	
16	13C4-PFOS	503 > 79.9	8.43e3	12.500	1.000	1.000	4.85	12.5	100.0	0.0017124	0.000000...	
17	13C9-PFNA	472.2 > 426.9	1.83e4	12.500	1.000	1.000	4.79	12.5	100.0	0.0186633	0.000000...	
18	Total PFBS	299 > 79.7	8.59e2			1.000		2.39				0.0000
19	Total PFHxS	398.9 > 79.8	5.48e2			1.000		2.22				0.0000
20	Total PFOA	413 > 368.7	3.32e3			1.000		2.49				0.0000
21	Total PFOS	499 > 79.9	9.17e2			1.000		2.70				0.0000





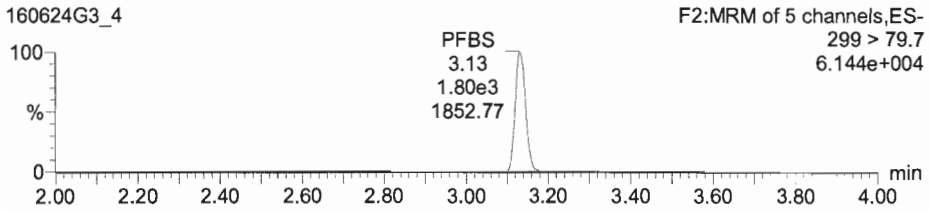
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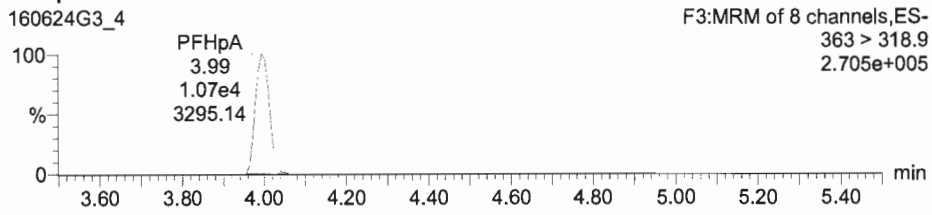
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Name: 160624G3_4, Date: 25-Jun-2016, Time: 01:15:13, ID: ST160624G3-3 PFC CS2 16F2207, Description: PFC CS2 16F2207 A

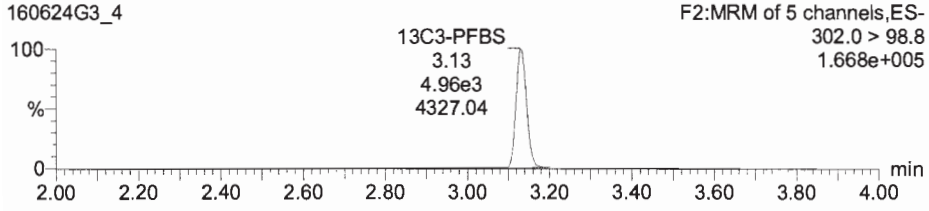
PFBS



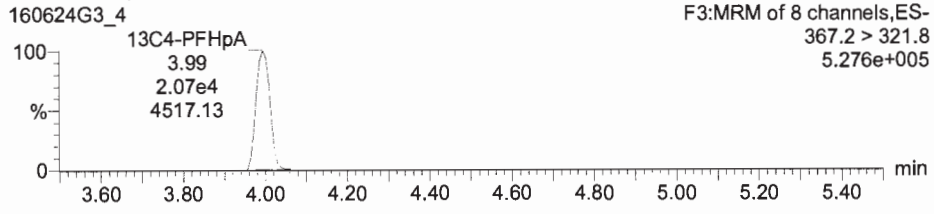
PFHpA



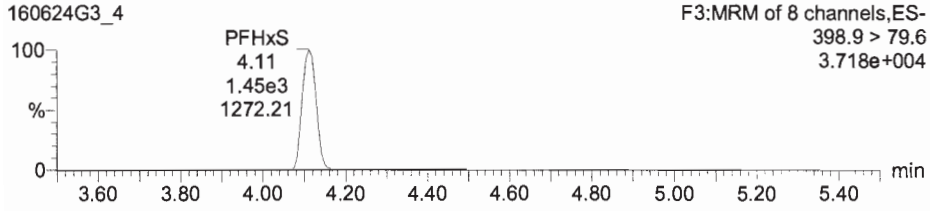
13C3-PFBS



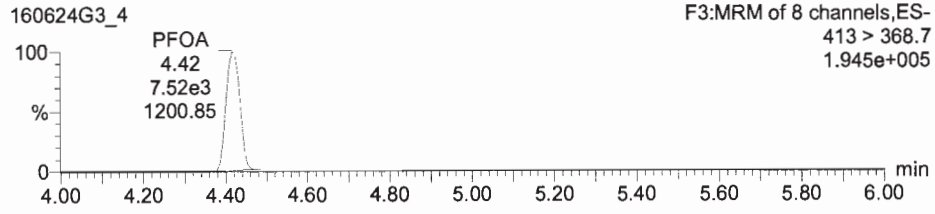
13C4-PFHpA



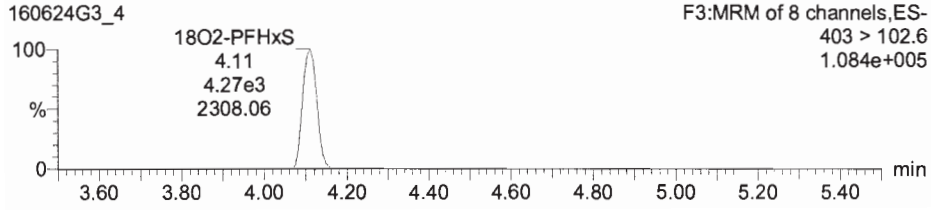
PFHxS



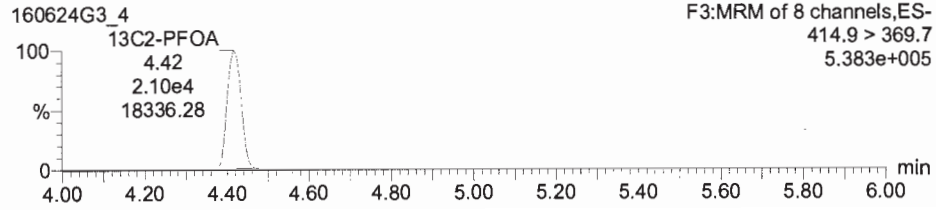
PFOA



18O2-PFHxS



13C2-PFOA

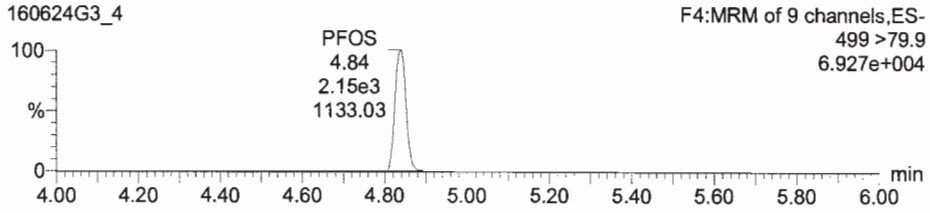


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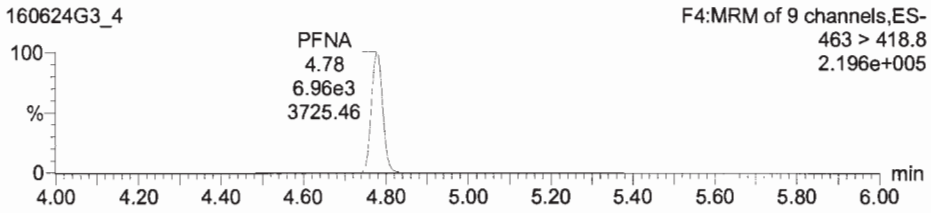
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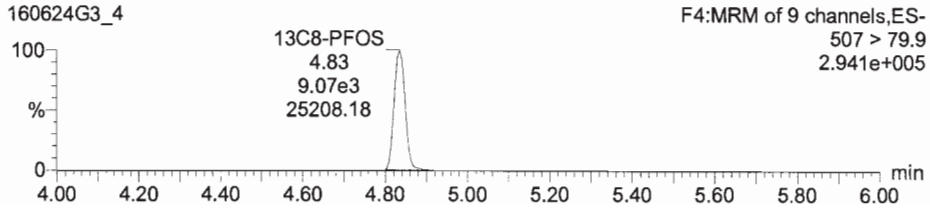
PFOS



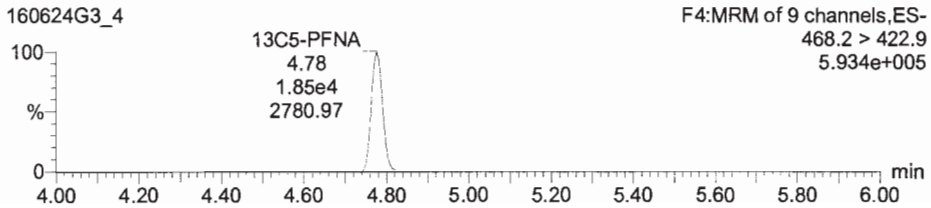
PFNA



13C8-PFOS



13C5-PFNA

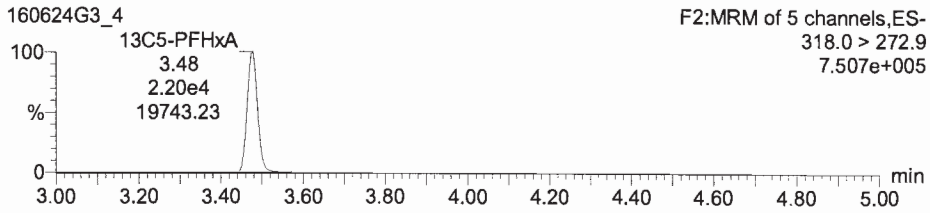


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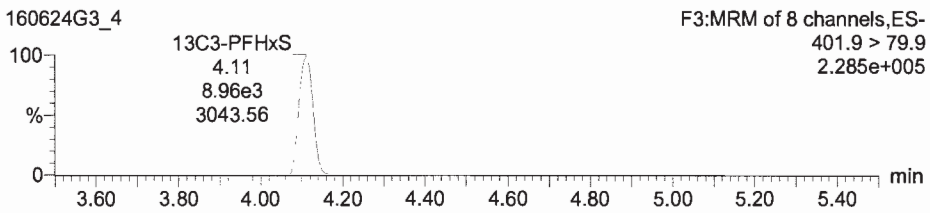
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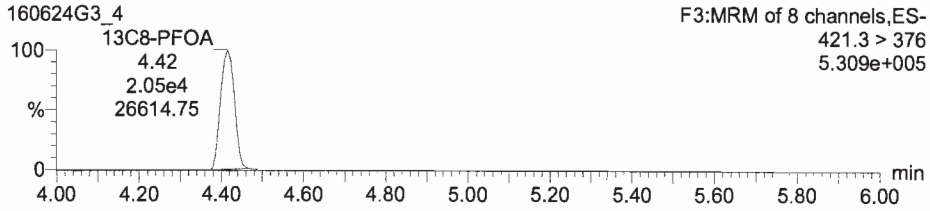
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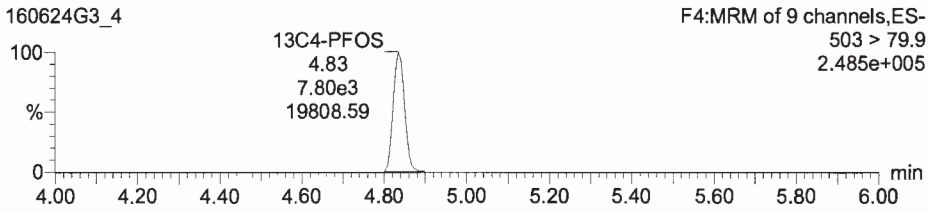
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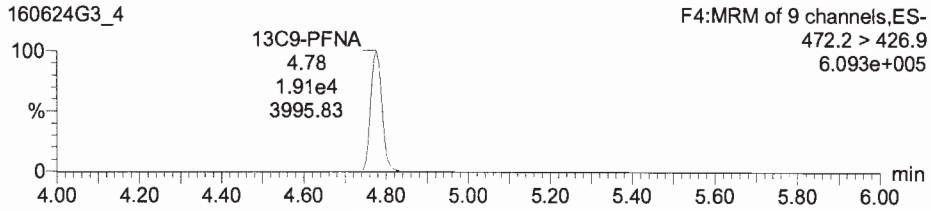
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13C4-PFOS



13C9-PFNA

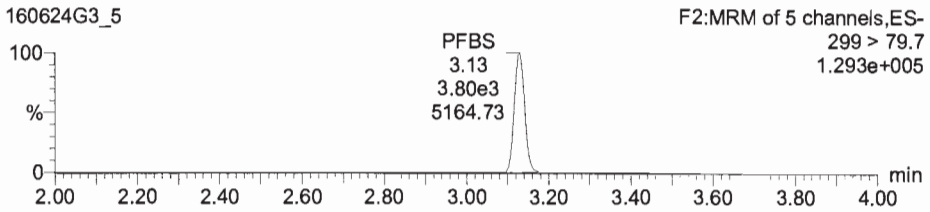


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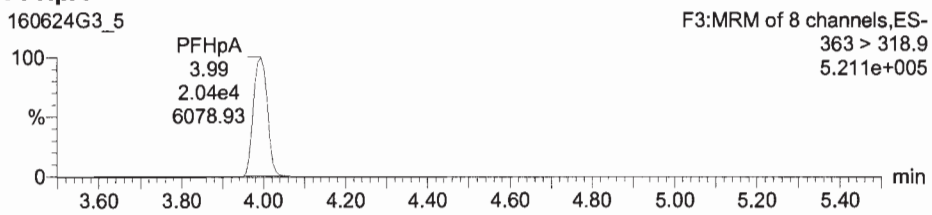
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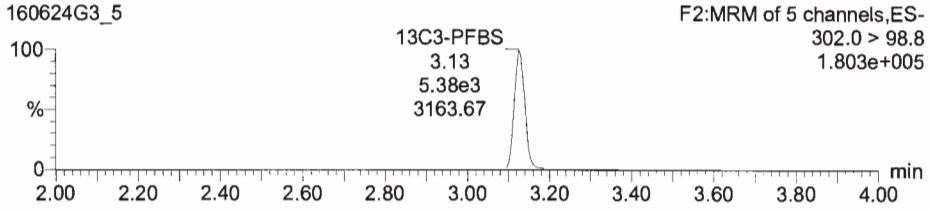
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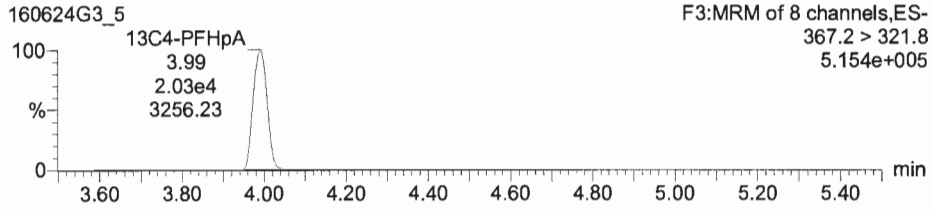
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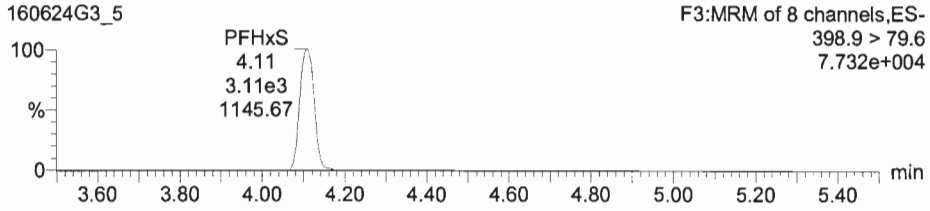
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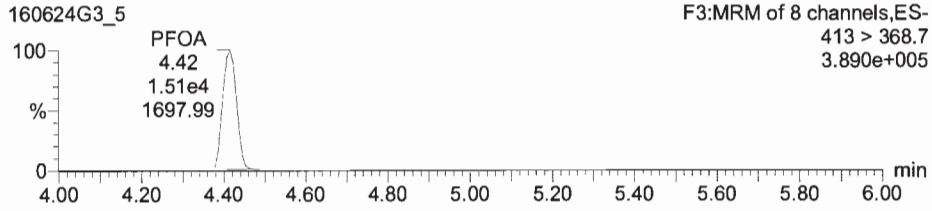
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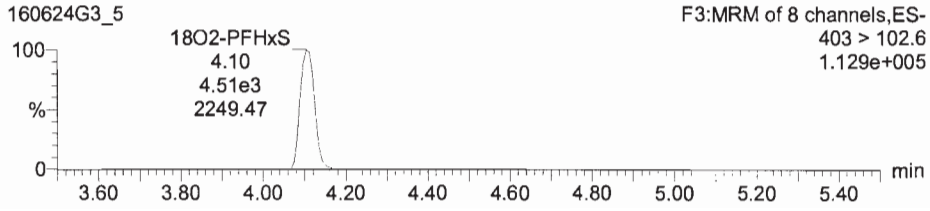
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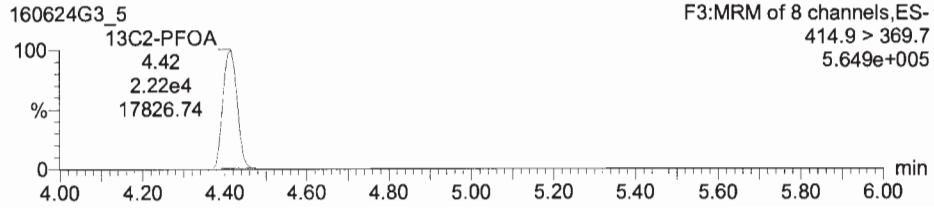
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18O2-PFHxS



13C2-PFOA

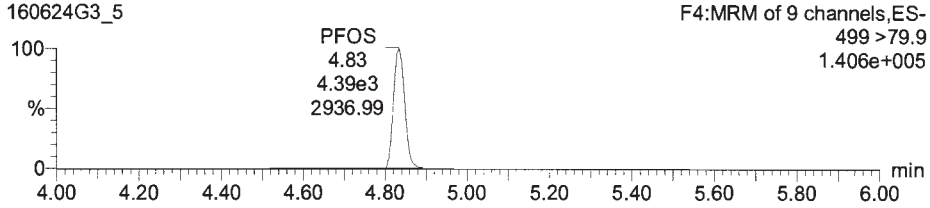


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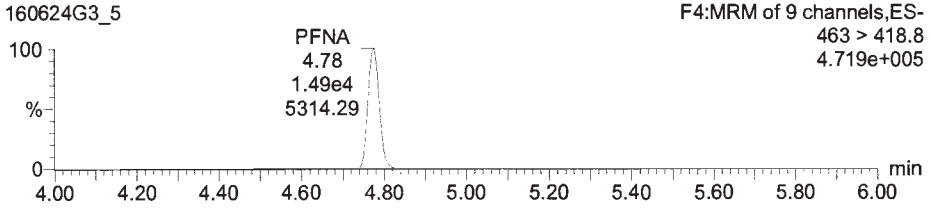
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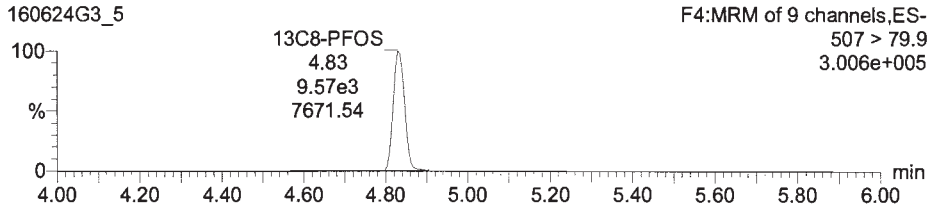
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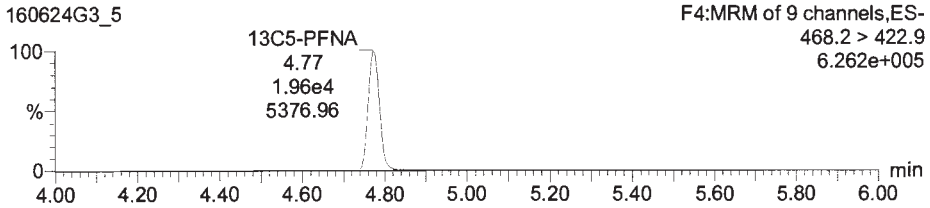
PFNA



13C8-PFOS



13C5-PFNA

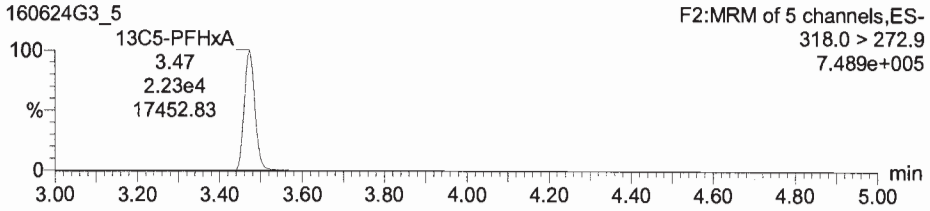


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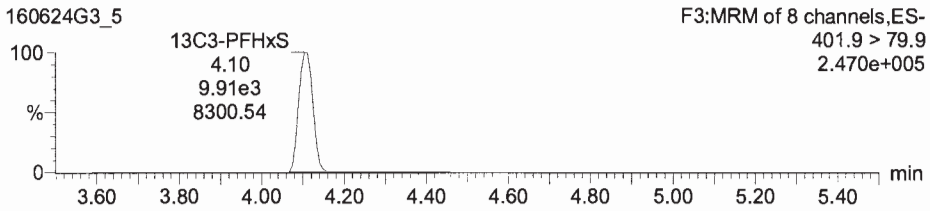
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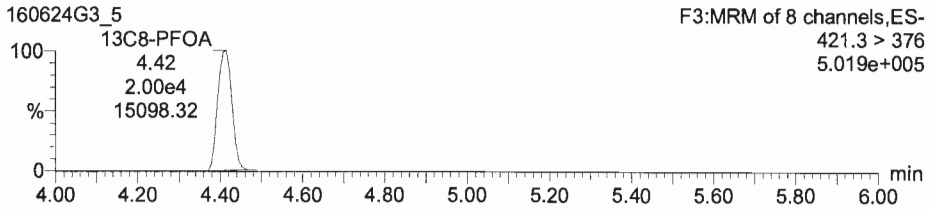
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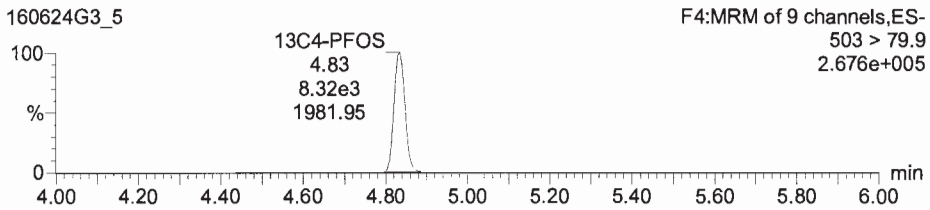
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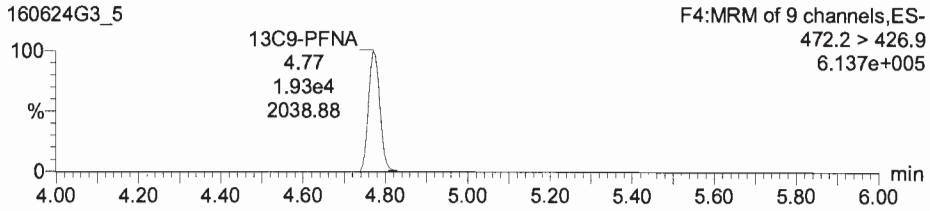
13C8-PFOA



13C4-PFOS



13C9-PFNA

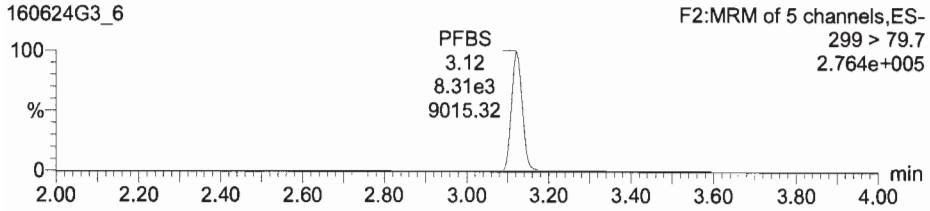


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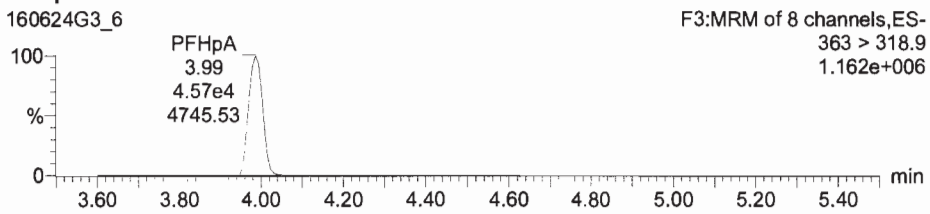
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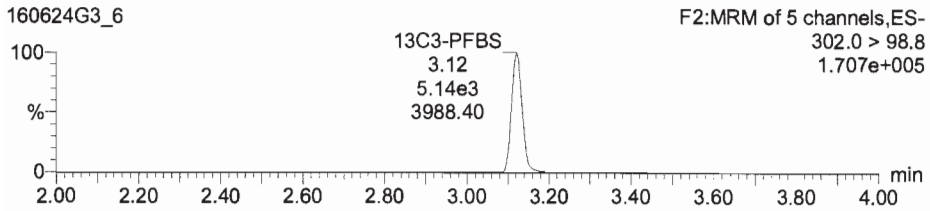
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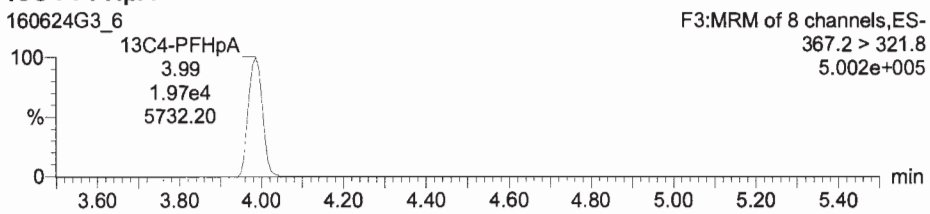
PFHpA



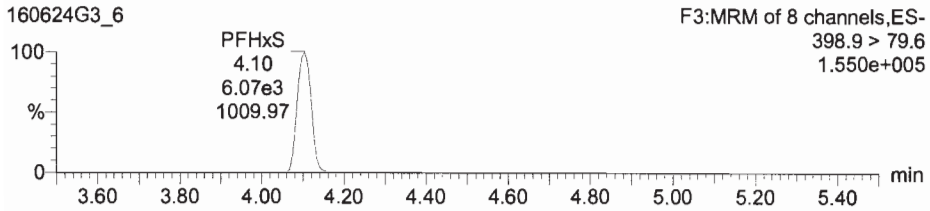
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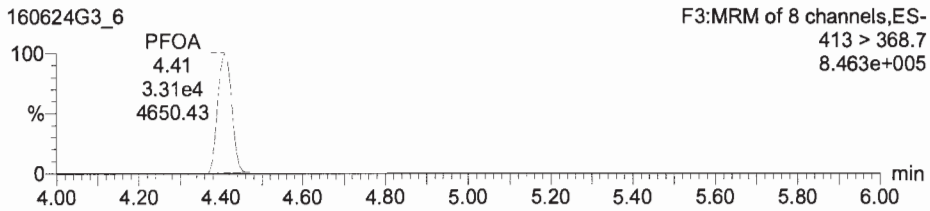
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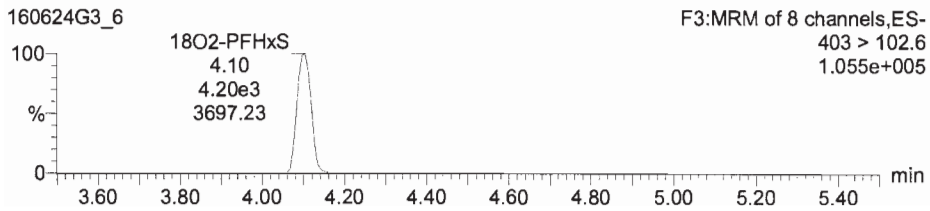
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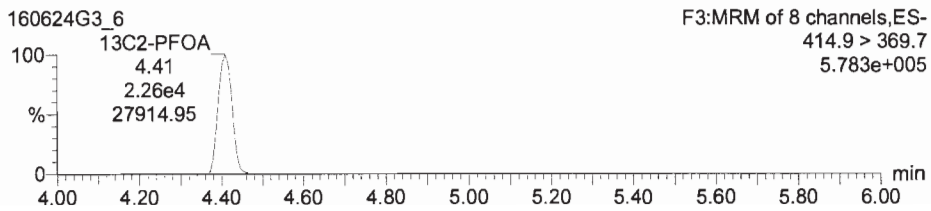
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18O2-PFHxS



13C2-PFOA

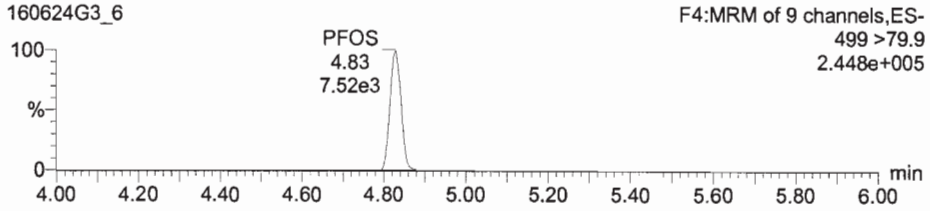


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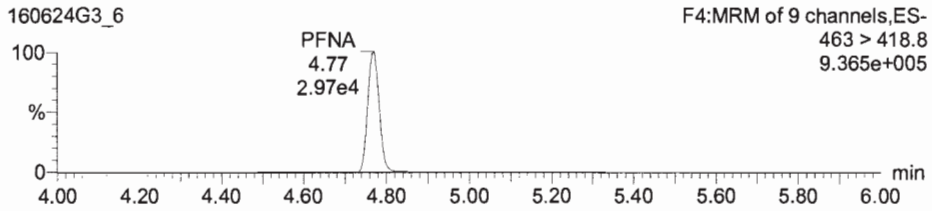
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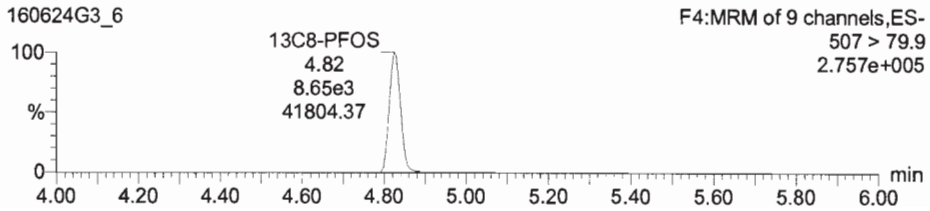
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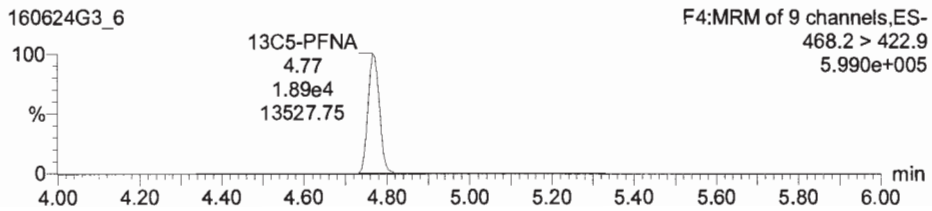
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13C8-PFOS



13C5-PFNA

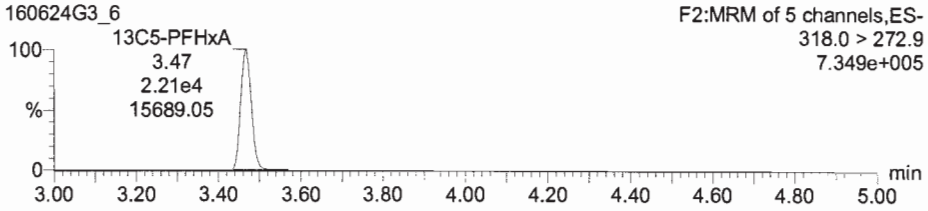


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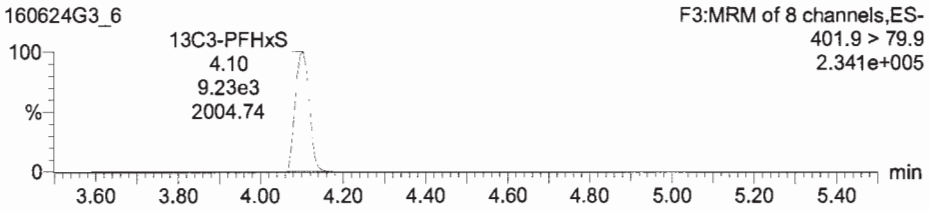
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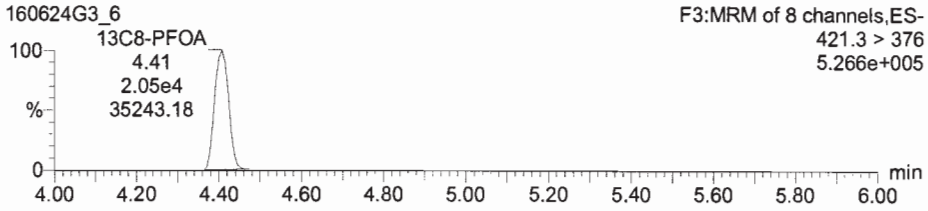
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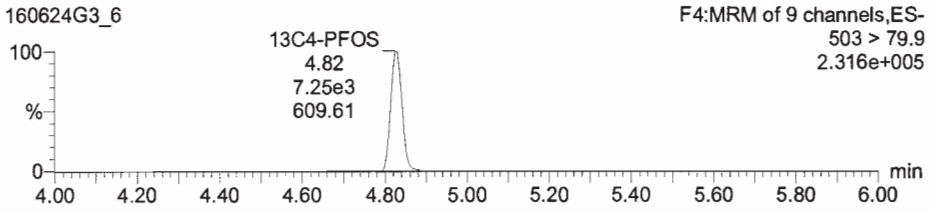
13C3-PFHxS



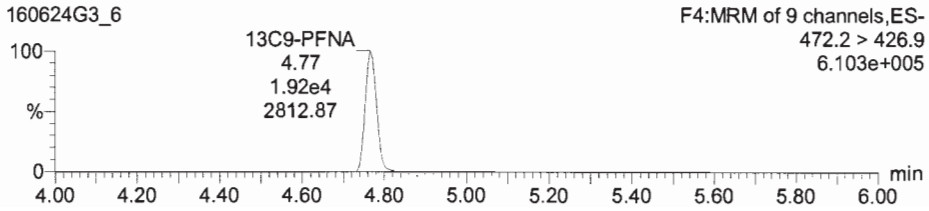
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13C4-PFOS



13C9-PFNA

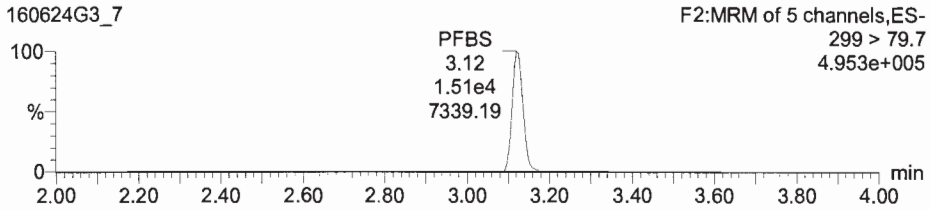


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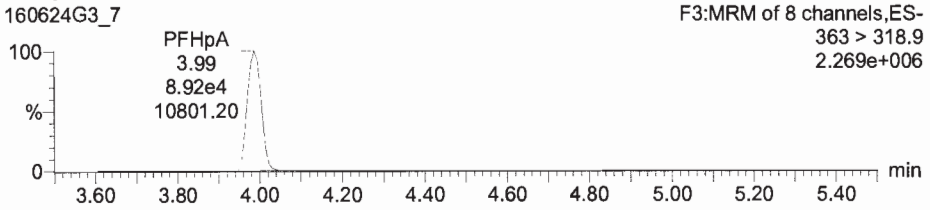
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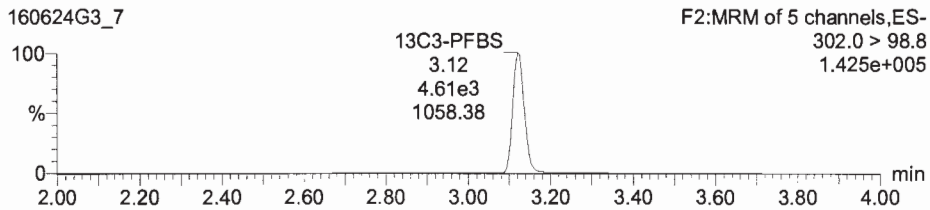
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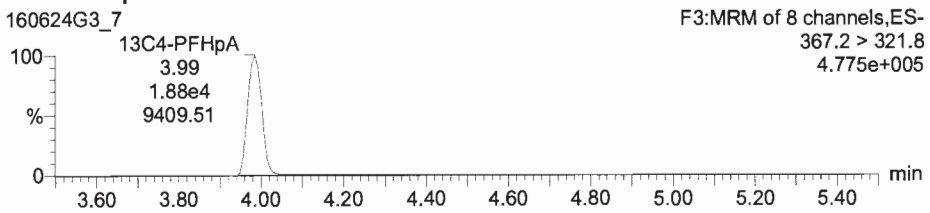
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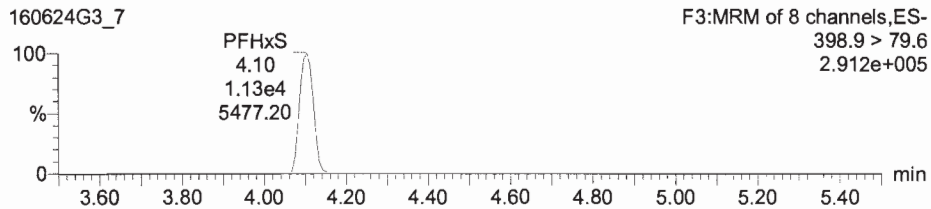
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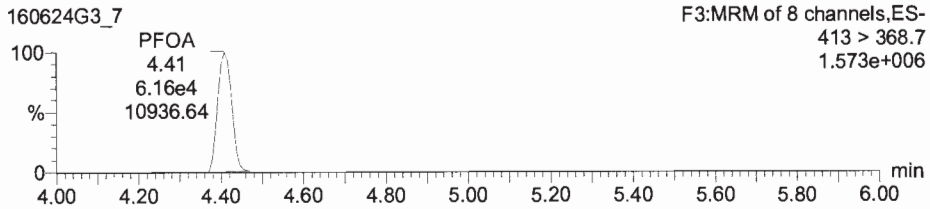
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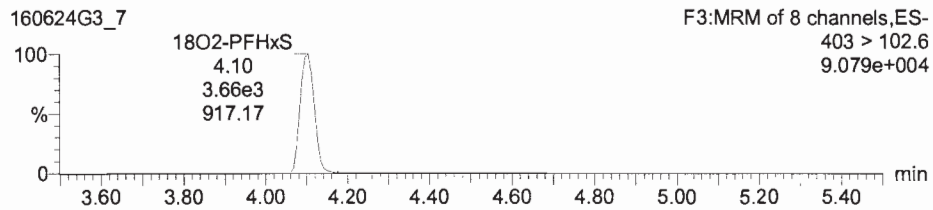
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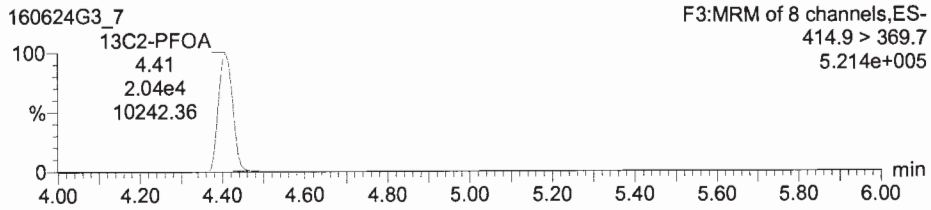
PFOA



18O2-PFHxS



13C2-PFOA

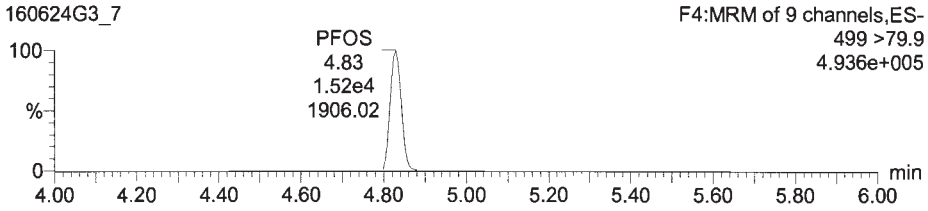


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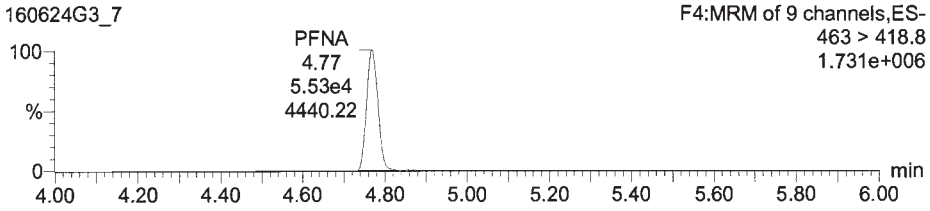
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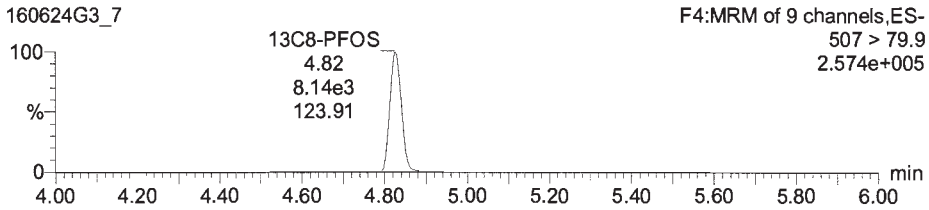
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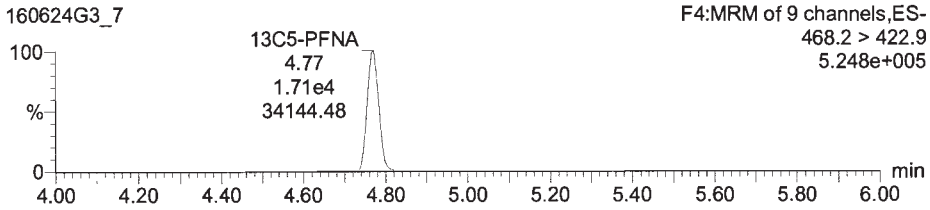
PFNA



13C8-PFOS



13C5-PFNA

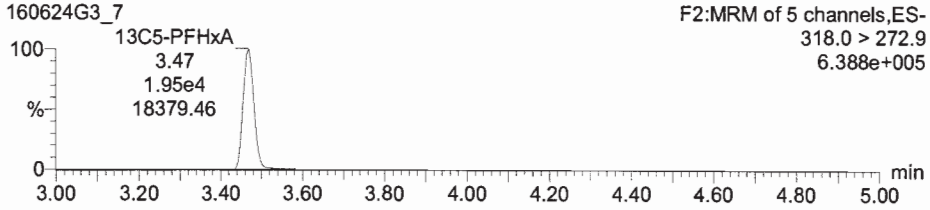


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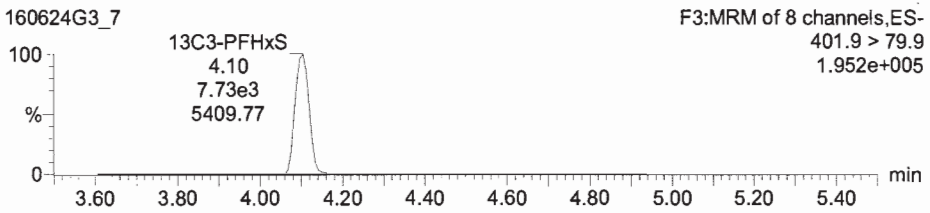
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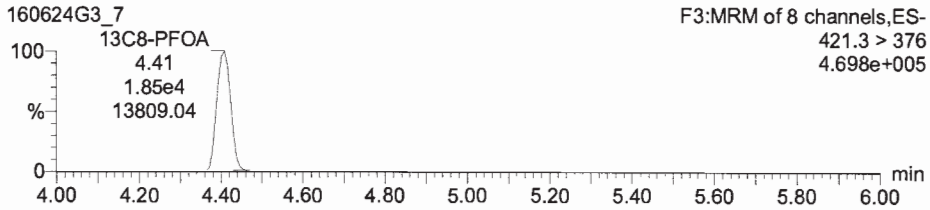
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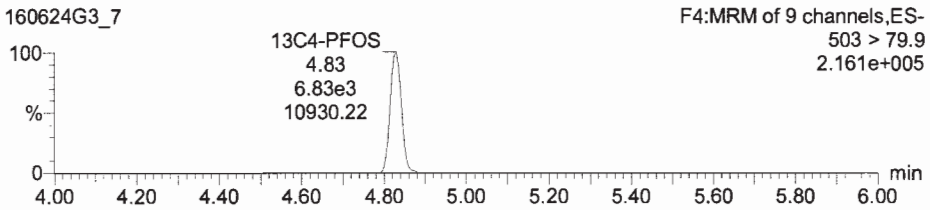
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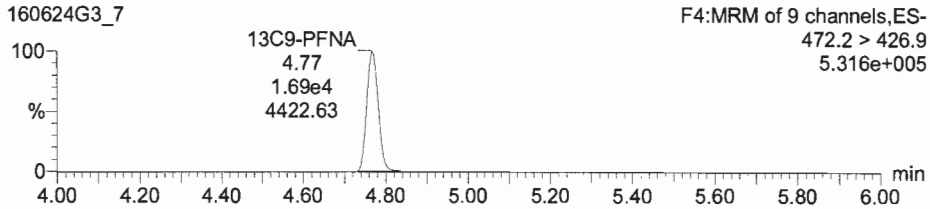
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13C4-PFOS



13C9-PFNA

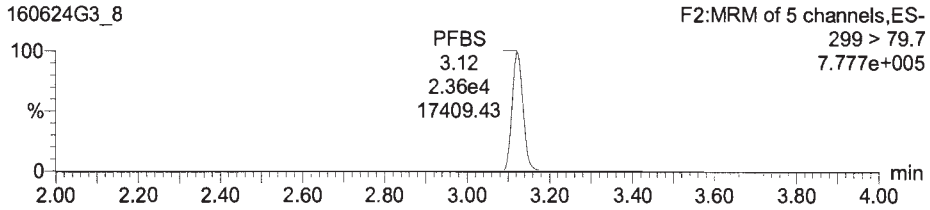


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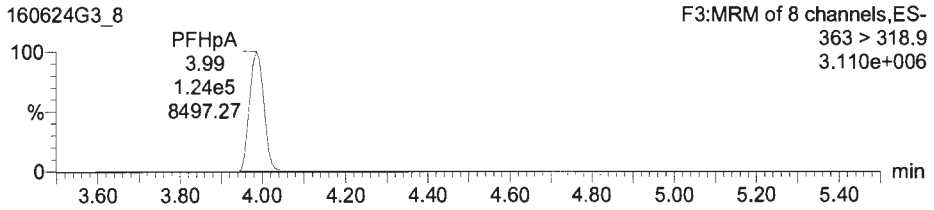
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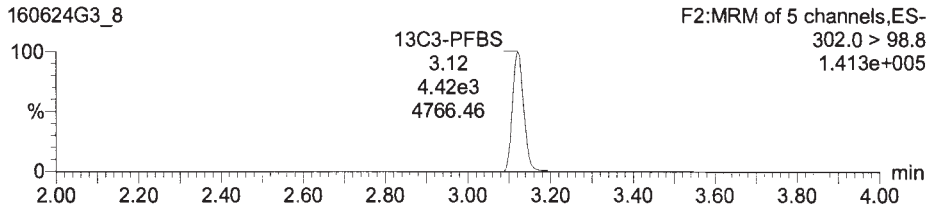
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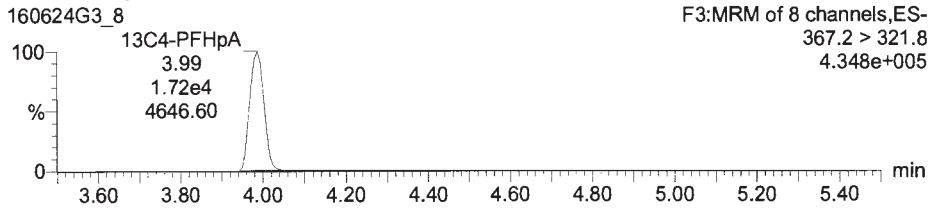
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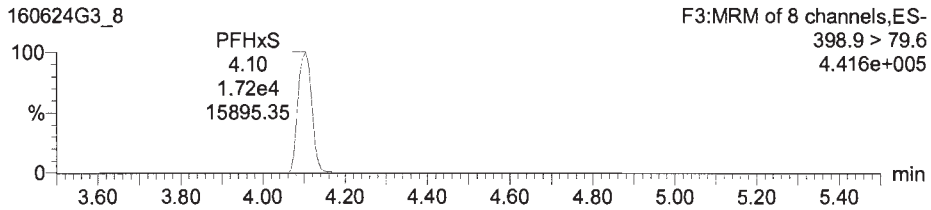
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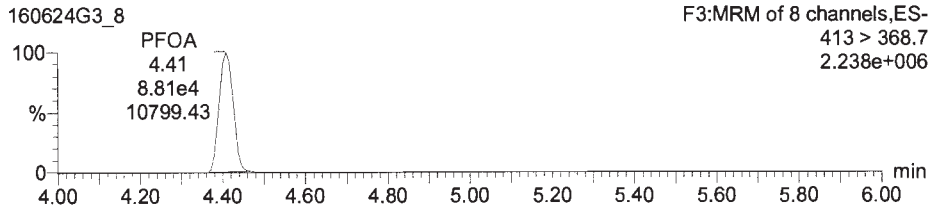
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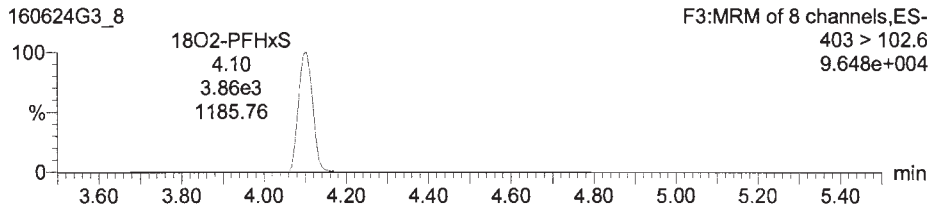
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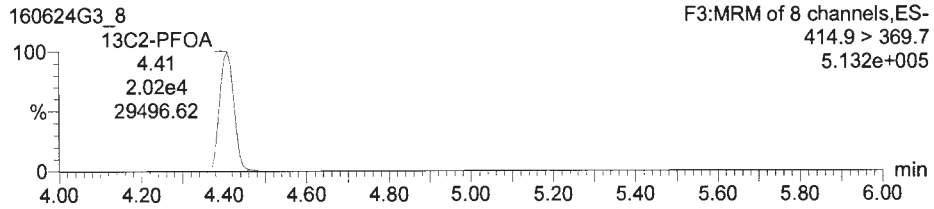
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18O2-PFHxS



13C2-PFOA

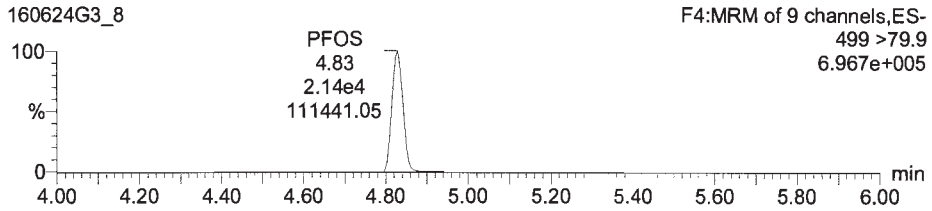


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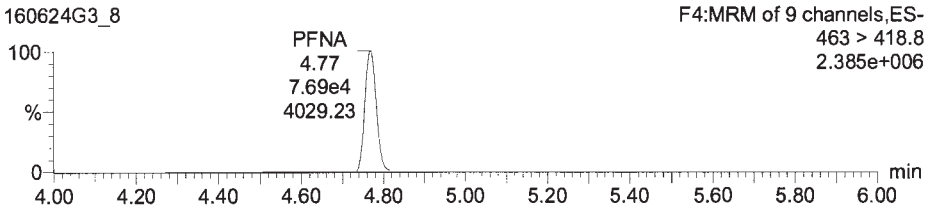
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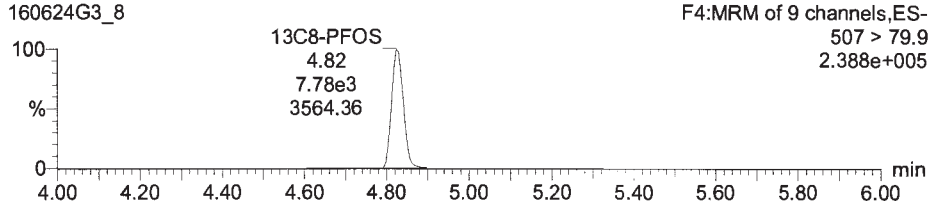
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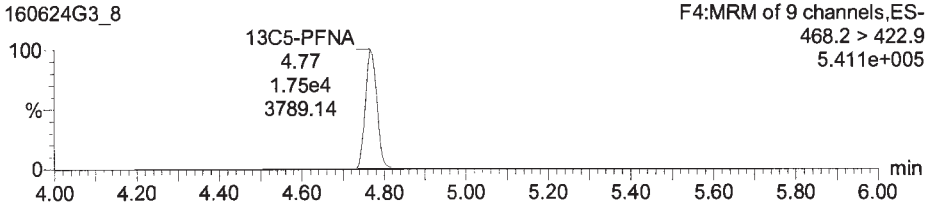
PFNA



13C8-PFOS



13C5-PFNA

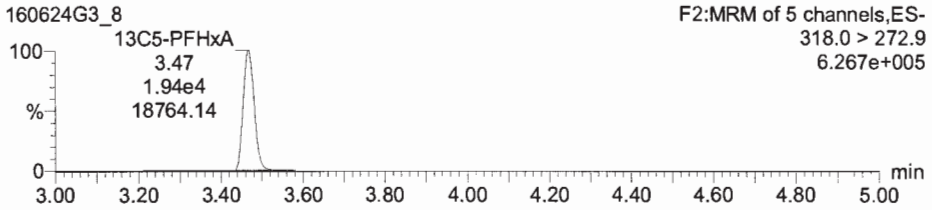


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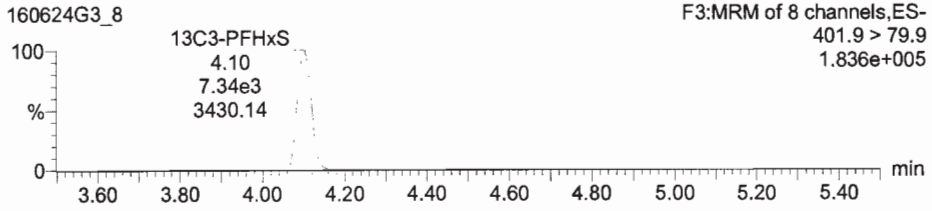
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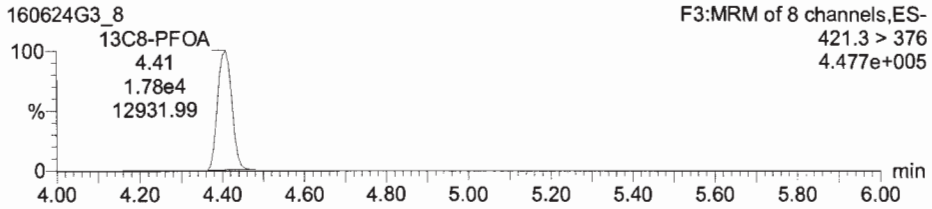
13C5-PFHxA



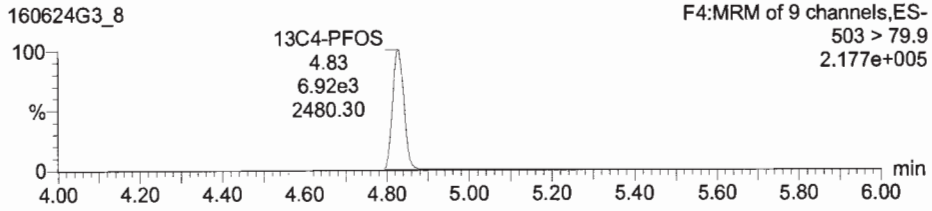
13C3-PFHxS



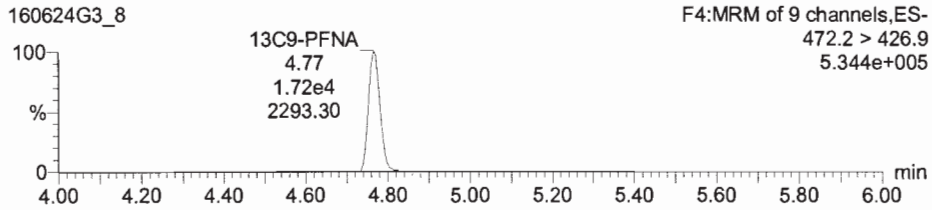
13C8-PFOA



13C4-PFOS



13C9-PFNA

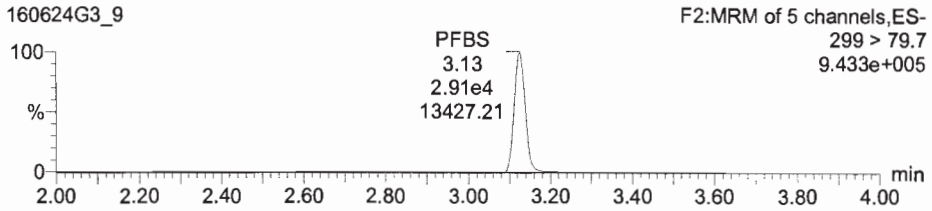


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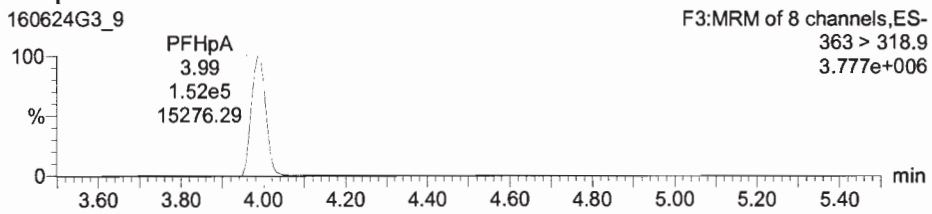
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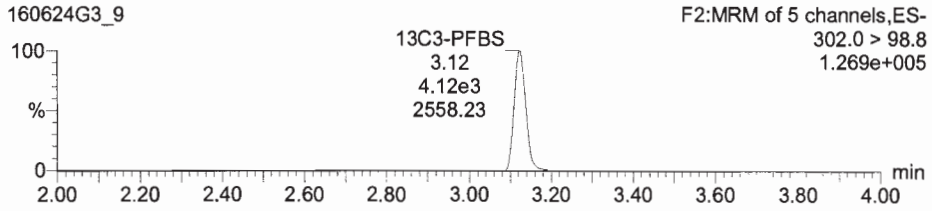
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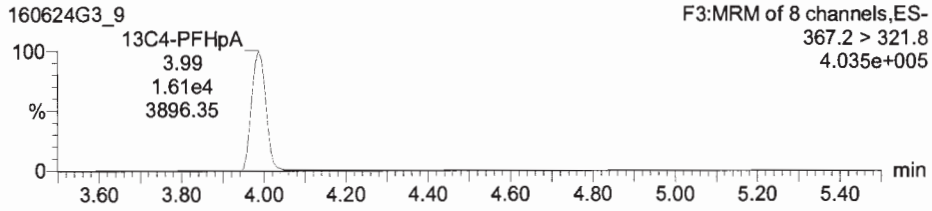
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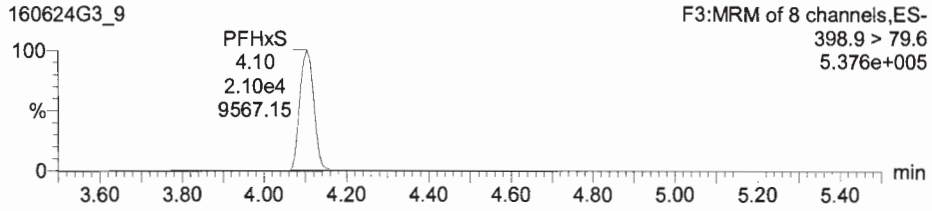
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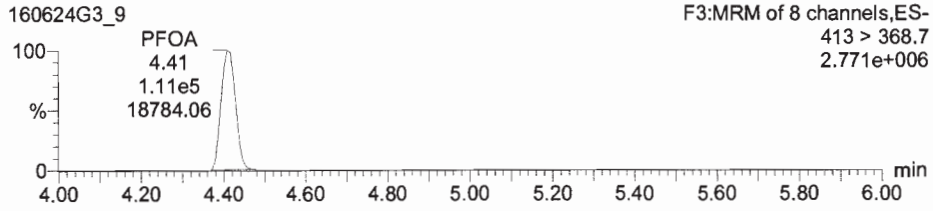
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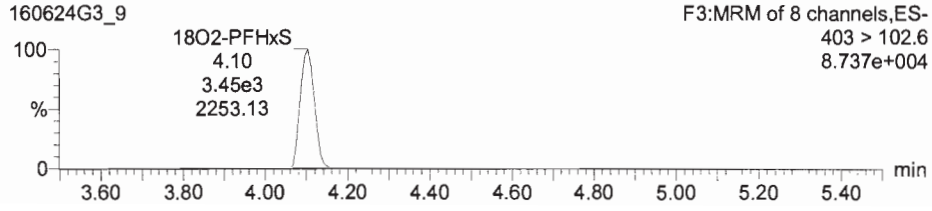
PFHxS



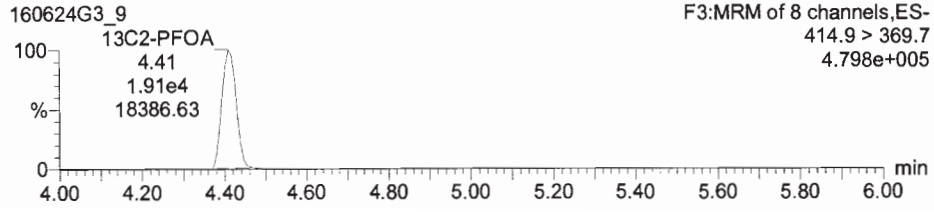
PFOA



18O2-PFHxS



13C2-PFOA

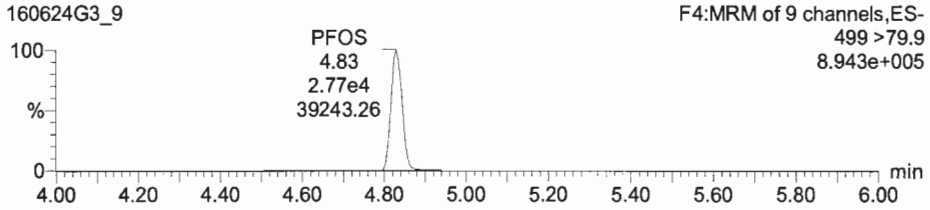


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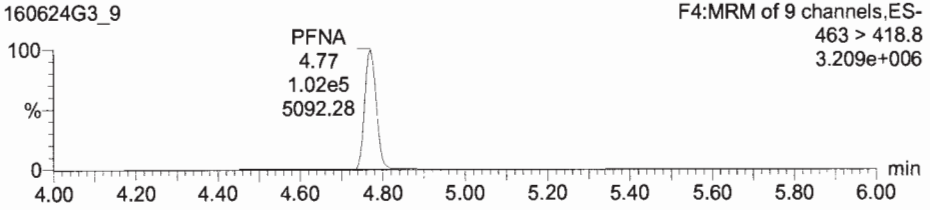
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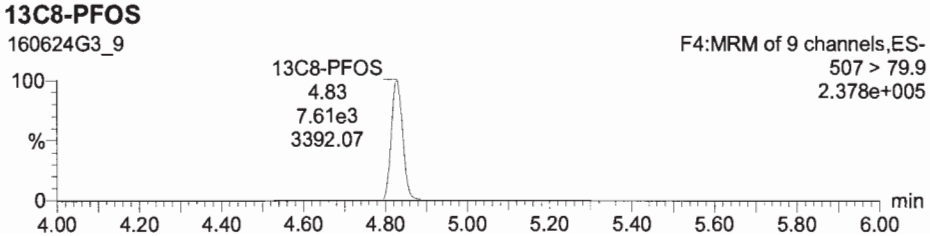
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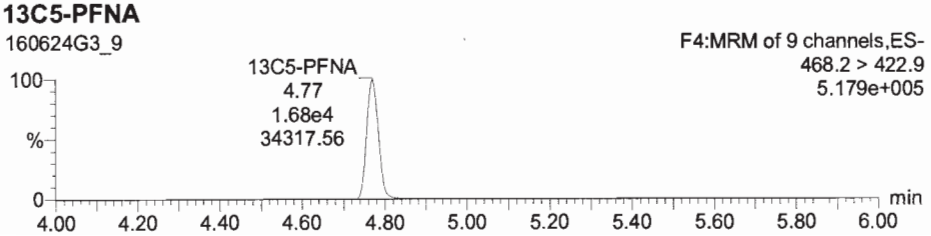
PFNA



13C8-PFOS



13C5-PFNA

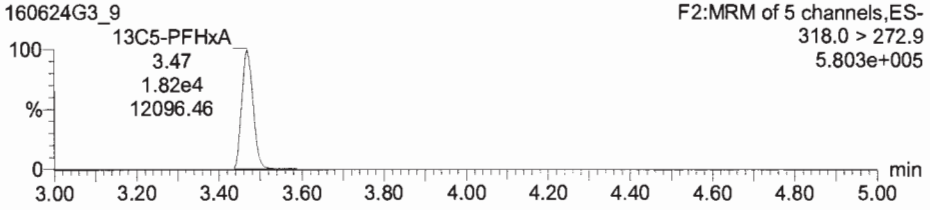


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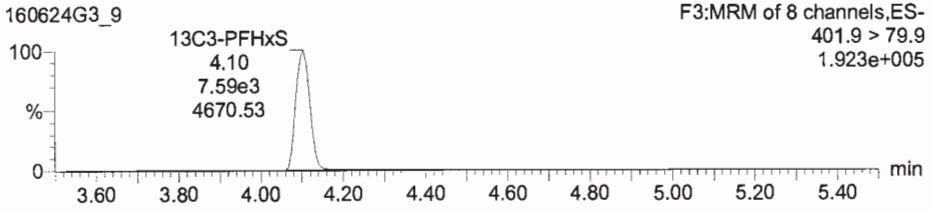
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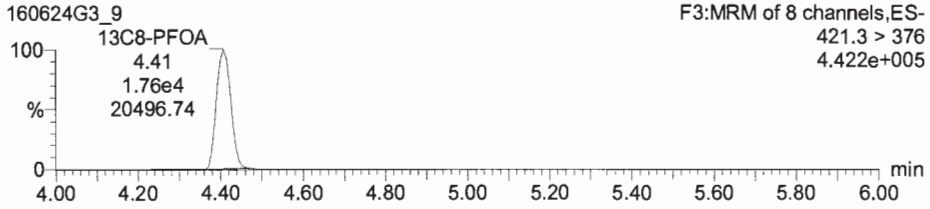
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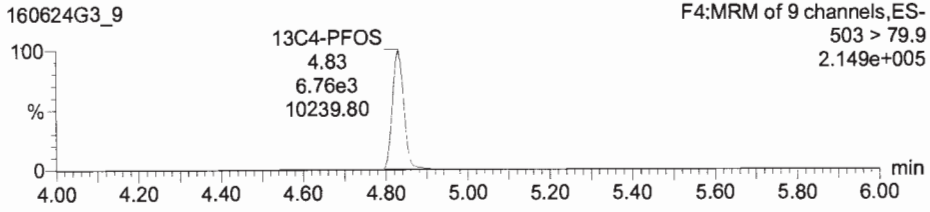
13C3-PFHxS



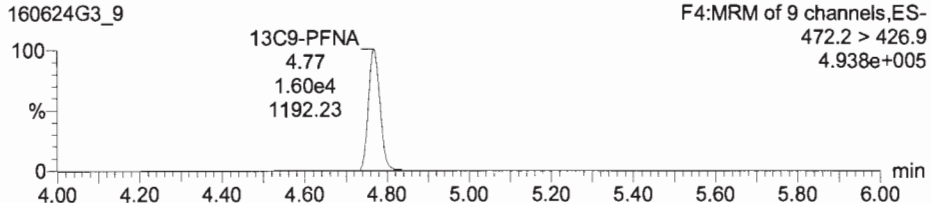
13C8-PFOA



13C4-PFOS



13C9-PFNA

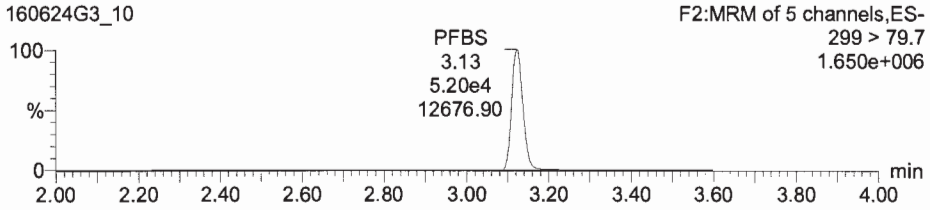


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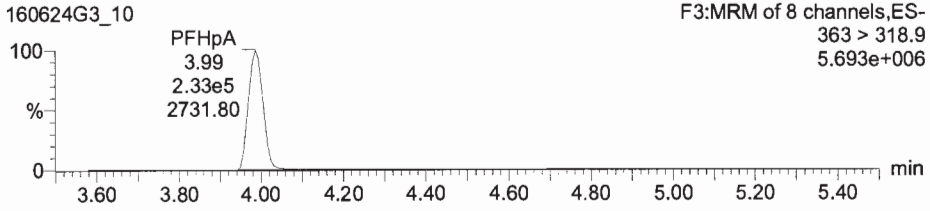
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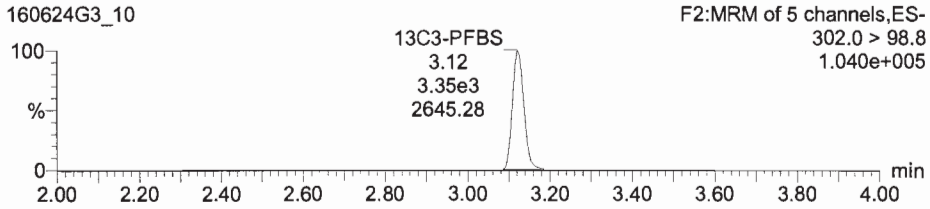
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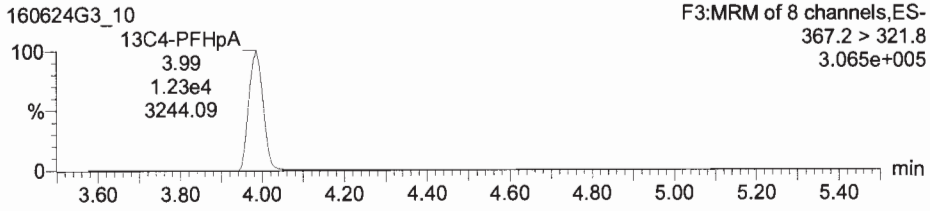
PFHpA



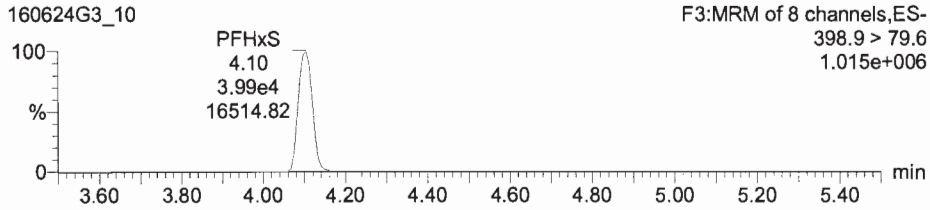
13C3-PFBS



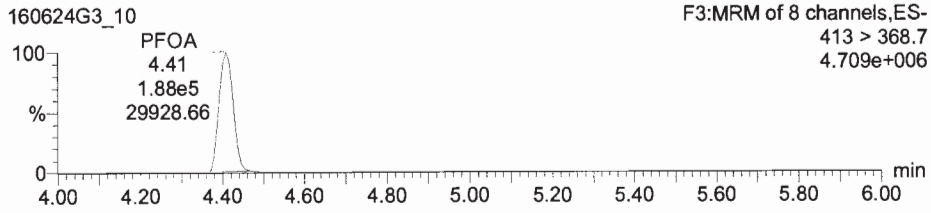
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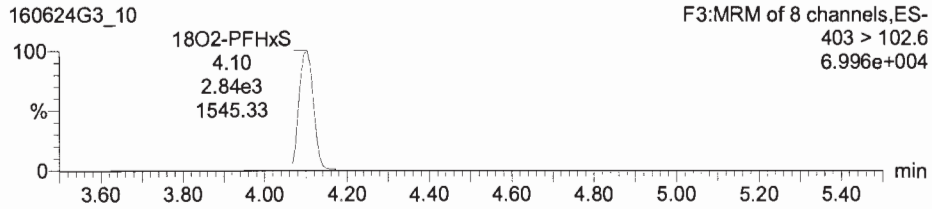
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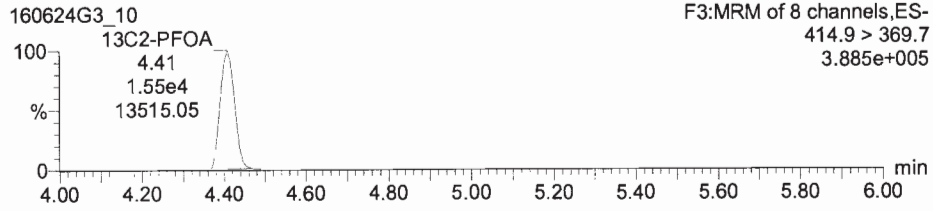
PFOA



18O2-PFHxS



13C2-PFOA

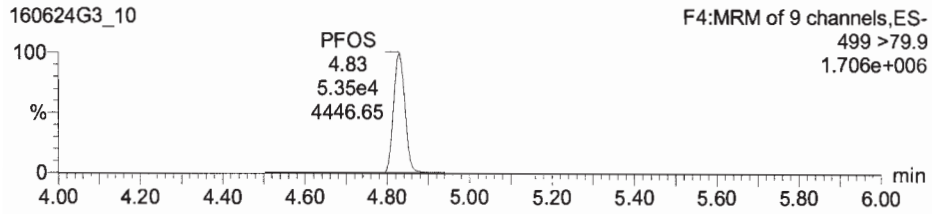


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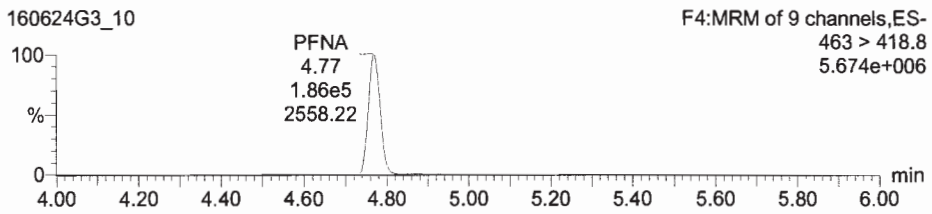
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Name: 160624G3_10, Date: 25-Jun-2016, Time: 02:31:15, ID: ST160624G3-9 PFC CS6 16F2213, Description: PFC CS6 16F2213 A

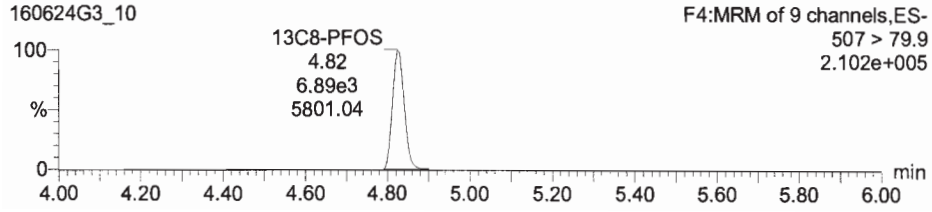
PFOS



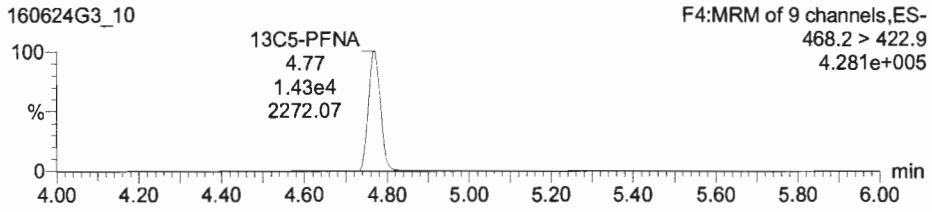
PFNA



13C8-PFOS



13C5-PFNA

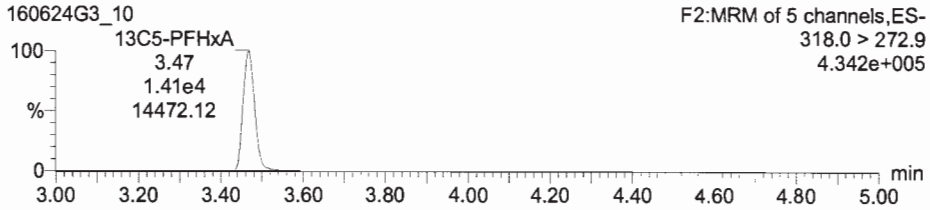


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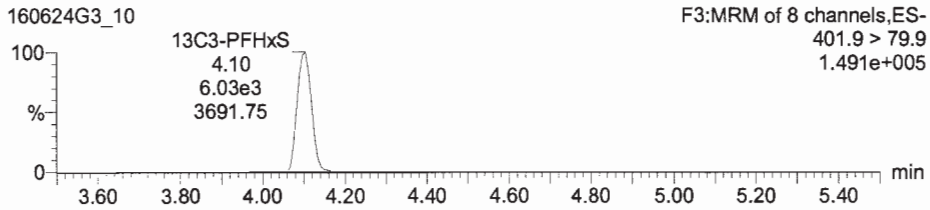
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Name: 160624G3_10, Date: 25-Jun-2016, Time: 02:31:15, ID: ST160624G3-9 PFC CS6 16F2213, Description: PFC CS6 16F2213 A

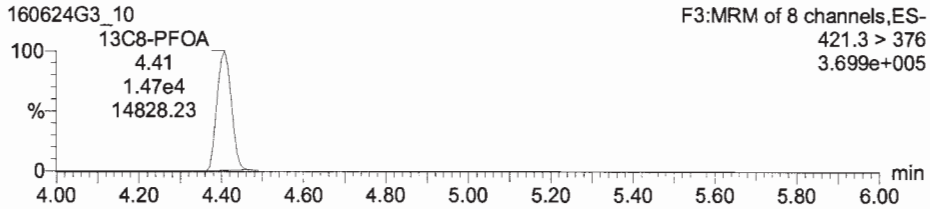
13C5-PFHxA



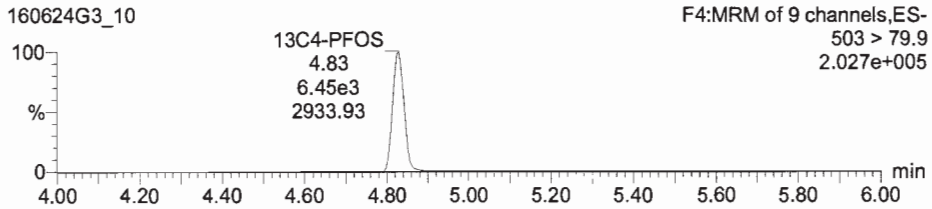
13C3-PFHxS



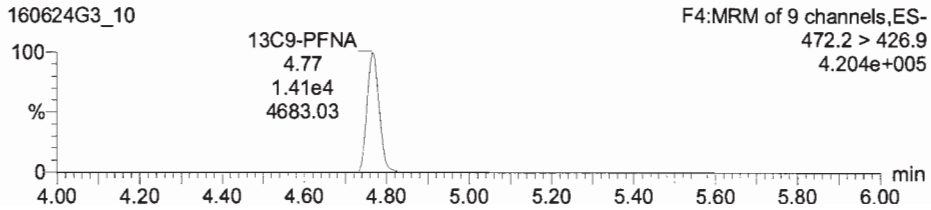
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_12.qld

Last Altered: Monday, June 27, 2016 12:34:06 Pacific Daylight Time
Printed: Monday, June 27, 2016 12:34:47 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Name: 160624G3_12, Date: 25-Jun-2016, Time: 02:56:33, ID: SS160624G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

	#-Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	8.49e3	4.66e3		1.000	3.13	27.2	109.0
2	2 PFHpA	363 > 318.9	5.16e4	1.83e4		1.000	3.99	29.5	118.1
3	3 PFHxS	398.9 > 79.6	5.07e3	4.09e3		1.000	4.10	21.3	~~85.2~~ 105.0 (R)
4	4 PFOA	413 > 368.7	2.41e4	2.18e4		1.000	4.41	18.5	~~73.9~~ 93.5%
5	5 PFOS	499 >79.9	4.53e3	8.35e3		1.000	4.83	14.7	~~58.7~~ 85.9% ↓
6	6 PFNA	463 > 418.8	2.67e4	1.84e4		1.000	4.77	23.3	93.1
7	7 13C3-PFBS	302.0 > 98.8	4.66e3	2.09e4	0.236	1.000	3.12	11.8	94.7
8	8 13C4-PFHpA	367.2 > 321.8	1.83e4	2.09e4	0.923	1.000	3.99	11.9	95.0
9	9 18O2-PFHxS	403 > 102.6	4.09e3	8.34e3	0.471	1.000	4.10	13.0	104.1
10	10 13C2-PFOA	414.9 > 369.7	2.18e4	1.98e4	1.088	1.000	4.41	12.7	101.6
11	11 13C8-PFOS	507 > 79.9	8.35e3	6.95e3	1.142	1.000	4.83	13.2	105.3
12	12 13C5-PFNA	468.2 > 422.9	1.84e4	1.71e4	1.008	1.000	4.77	13.3	106.6
13	13 13C5-PFHxA	318.0 > 272.9	2.09e4	2.09e4	1.000	1.000	3.47	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	8.34e3	8.34e3	1.000	1.000	4.10	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.98e4	1.98e4	1.000	1.000	4.41	12.5	100.0
16	16 13C4-PFOS	503 > 79.9	6.95e3	6.95e3	1.000	1.000	4.83	12.5	100.0
17	17 13C9-PFNA	472.2 > 426.9	1.71e4	1.71e4	1.000	1.000	4.77	12.5	100.0
18	18 Total PFBS	299 > 79.7		4.66e3		1.000		27.2	
19	19 Total PFHxS	398.9 > 79.6		4.09e3		1.000		25.4	
20	20 Total PFOA	413 > 368.7		2.18e4		1.000		21.9	
21	21 Total PFOS	499 > 79.9		8.35e3		1.000		25.2	

(R) Branched and technical mix used. % Recovery based on linear isomer

BR 6/27/16

PD 6/27/16

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160624G3\160624G3_12.qld

Last Altered: Monday, June 27, 2016 12:34:06 Pacific Daylight Time
Printed: Monday, June 27, 2016 12:34:47 Pacific Daylight Time

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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Name: 160624G3_12, Date: 25-Jun-2016, Time: 02:56:33, ID: SS160624G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

Total PFBS

	#-Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	3.13	8.49e3	4.66e3	27.2

Total PFHxS

	#-Name	Trace	RT	Area	IS Area	Conc.
1	19 Total PFHxS	398.9 > 79.6	4.00	9.54e2	4.09e3	4.08
2	3 PFHxS	398.9 > 79.6	4.10	5.07e3	4.09e3	21.3

Total PFOA

	#-Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.18	9.89e1	2.18e4	0.0757
2	20 Total PFOA	413 > 368.7	4.30	4.42e3	2.18e4	3.39
3	4 PFOA	413 > 368.7	4.41	2.41e4	2.18e4	18.5

Total PFOS

	#-Name	Trace	RT	Area	IS Area	Conc.
1	21 Total PFOS	499 >79.9	4.61	1.04e2	8.35e3	0.339
2	21 Total PFOS	499 >79.9	4.71	3.15e3	8.35e3	10.2
3	5 PFOS	499 >79.9	4.83	4.53e3	8.35e3	14.7

Vista Analytical Laboratory Q1

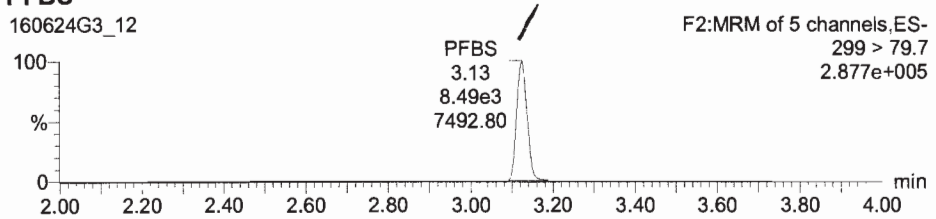
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Printed: Monday, June 27, 2016 11:50:36 Pacific Daylight Time

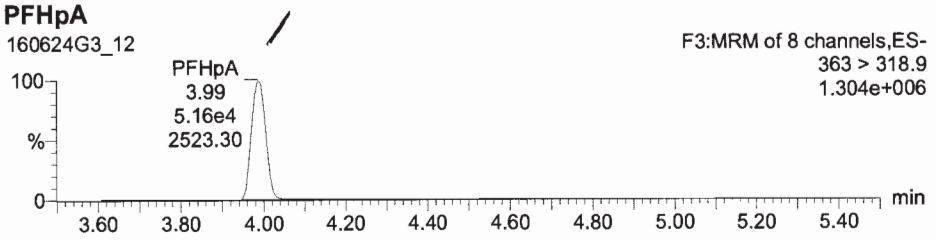
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Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-24-16_L6.cdb 27 Jun 2016 09:28:24

Name: 160624G3_12, Date: 25-Jun-2016, Time: 02:56:33, ID: SS160624G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

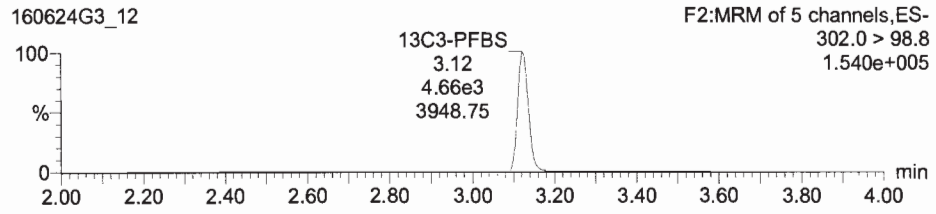
PFBS



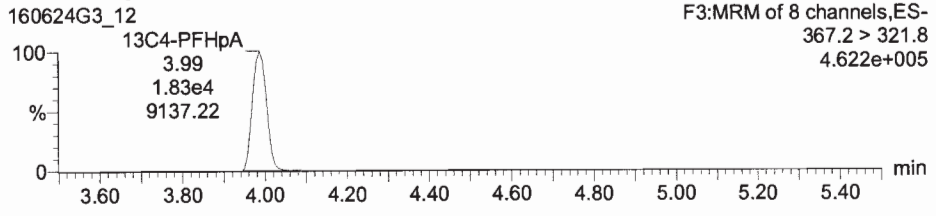
PFHpA



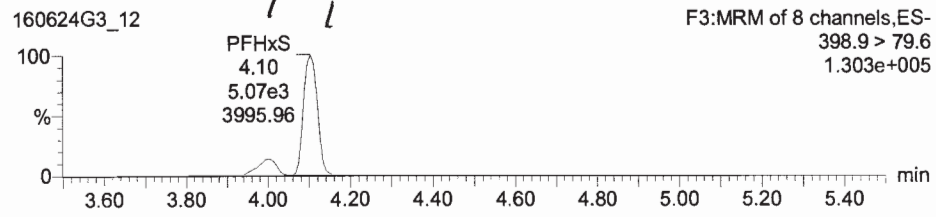
13C3-PFBS



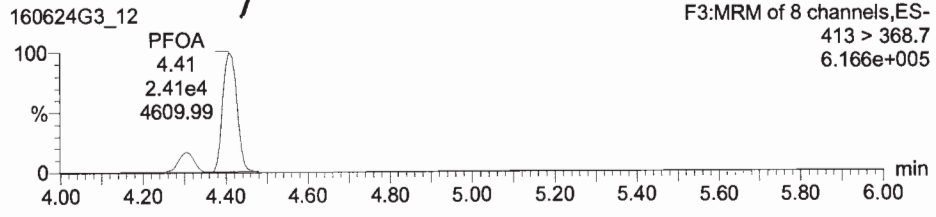
13C4-PFHpA



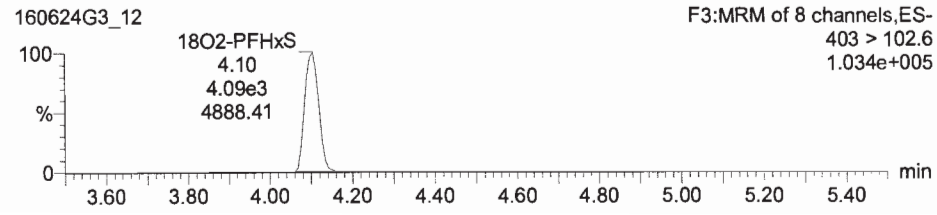
PFHxS



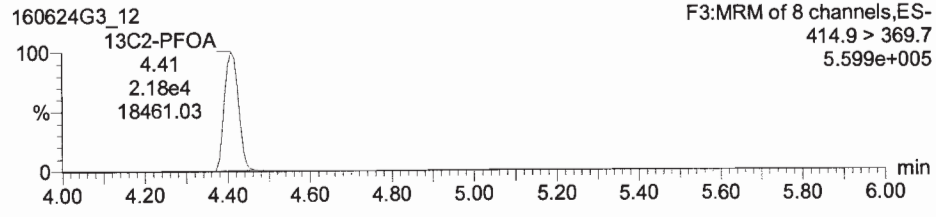
PFOA



18O2-PFHxS



13C2-PFOA

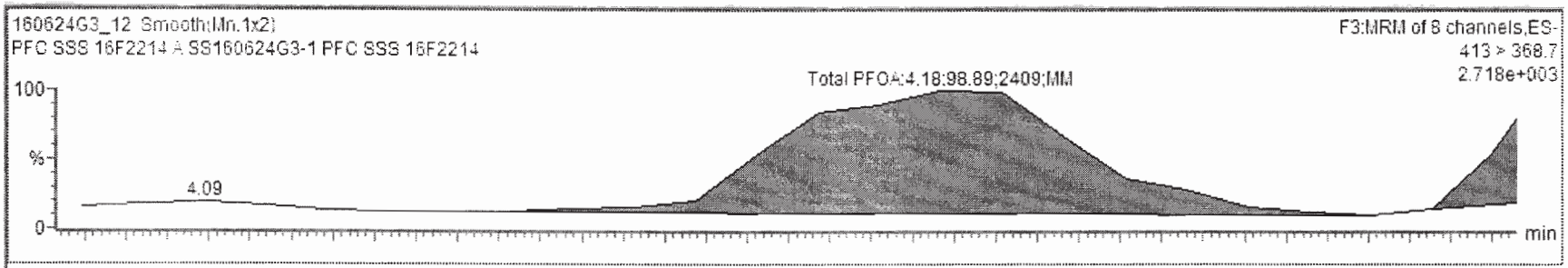


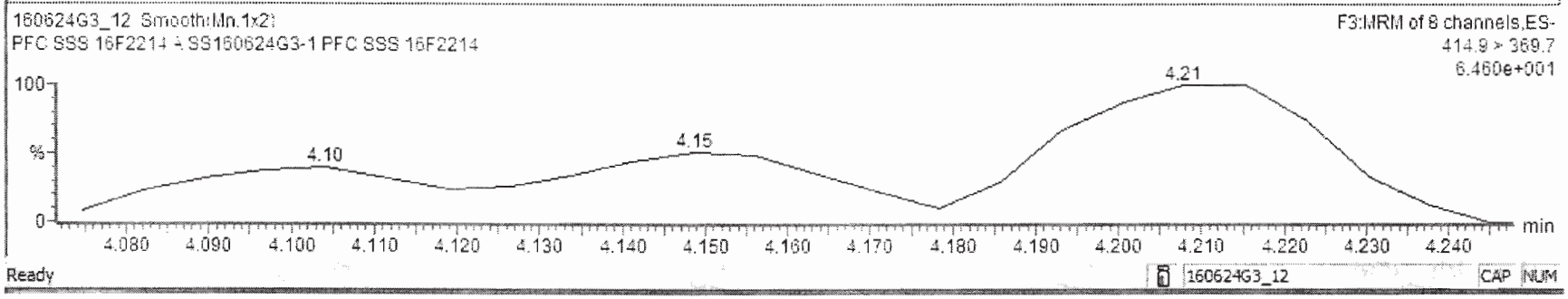
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File Edit View Display Processing Window Help

160624G3_12 - SS160624G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

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7	13C3-PFBS	302.0 > 98.8	4.66e3	2.793	0.223	1.000	3.12	11.8	94.7	0.0074056	4.03	
8	13C4-PFHpA	367.2 > 321.8	1.83e4	10.958	0.877	1.000	3.99	11.9	95.0	0.0024580	4.79	
9	18O2-PFHxS	403 > 102.6	4.09e3	6.130	0.490	1.000	4.10	13.0	104.1	0.0065451	5.13	
10	13C2-PFOA	414.9 > 369.7	2.16e4	13.808	1.105	1.000	4.41	12.7	101.6	0.0017284	3.03	
11	13C8-PFOS	507 > 79.9	8.35e3	15.029	1.202	1.000	4.83	13.2	105.3	0.0005302	3.69	
12	13C5-PFNA	468.2 > 422.9	1.84e4	13.441	1.075	1.000	4.77	13.3	106.6	0.0007915	2.51	
13	13C5-PFHxA	318.0 > 272.9	2.09e4	12.500	1.000	1.000	3.47	12.5	100.0	0.0019168	0.000	
14	13C3-PFHxS	401.9 > 79.9	8.34e3	12.500	1.000	1.000	4.10	12.5	100.0	0.0072795	0.000	
15	13C8-PFOA	421.3 > 376	1.98e4	12.500	1.000	1.000	4.41	12.5	100.0	0.0005717	0.000	
16	13C4-PFOS	503 > 79.9	6.95e3	12.500	1.000	1.000	4.83	12.5	100.0	0.0000000	0.000	
17	13C9-PFNA	472.2 > 426.9	1.71e4	12.500	1.000	1.000	4.77	12.5	100.0	0.0114172	0.000	
18	Total PFBS	299 > 79.7	8.49e3			1.000		27.2				0.0000
19	Total PFHxS	398.9 > 79.6	6.02e3			1.000		25.4				0.0000
20	Total PFOA	413 > 368.7	2.87e4			1.000		21.9				0.0000
21	Total PFOS	499 > 79.9	7.79e3			1.000		25.2				0.0000





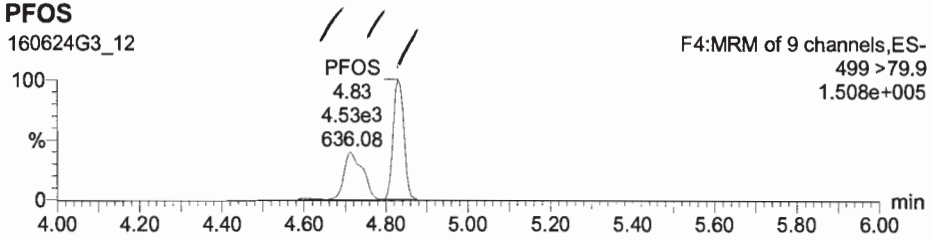
Ready 160624G3_12 CAP NUM

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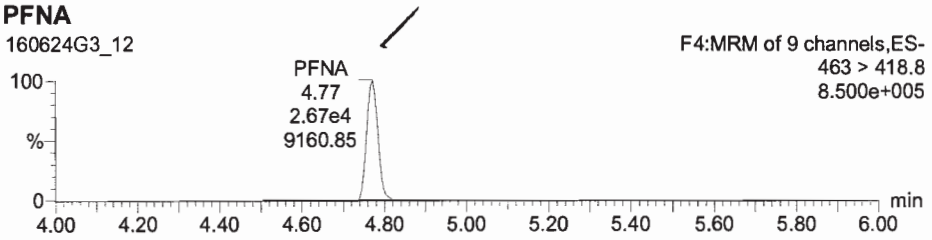
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Printed: Monday, June 27, 2016 11:50:36 Pacific Daylight Time

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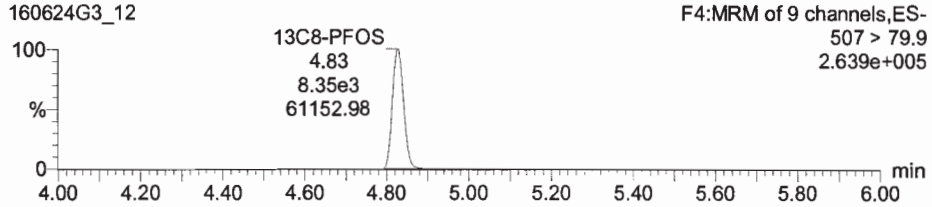
PFOS



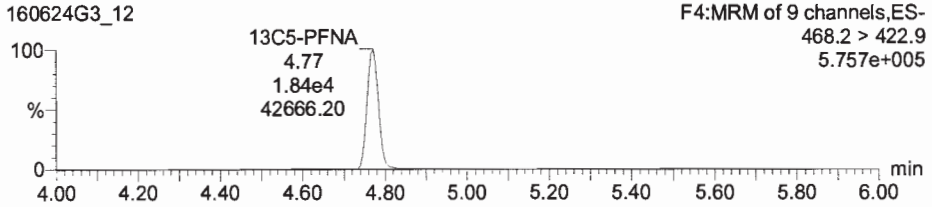
PFNA



13C8-PFOS



13C5-PFNA

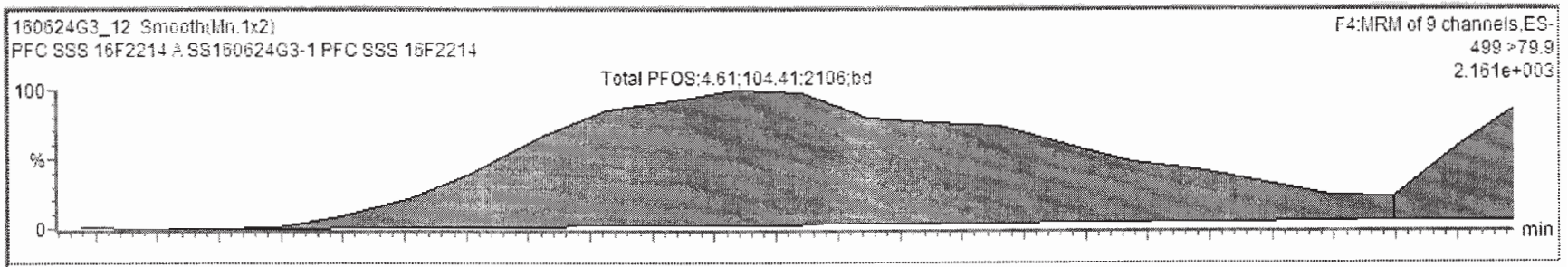


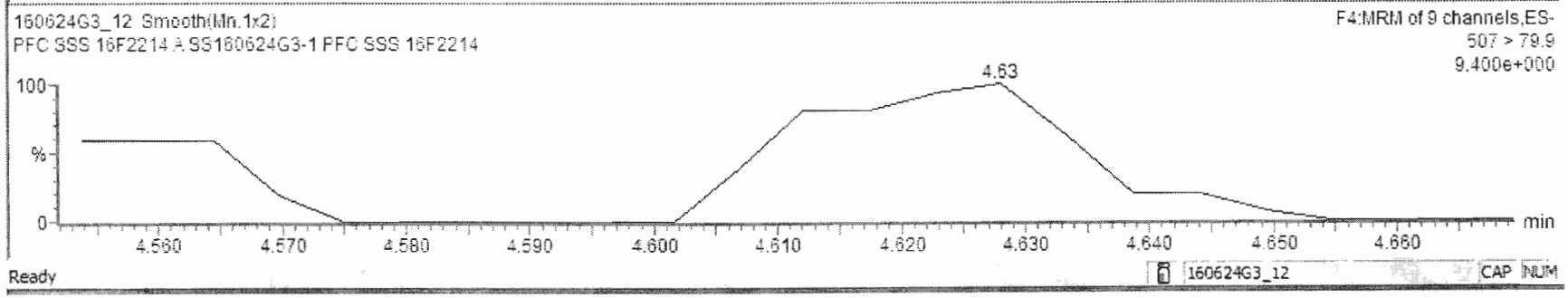
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File Edit View Display Processing Window Help

160624G3_12 - SS160624G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

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8	13C4-PFHpA	367.2 > 321.8	1.83e4	10.958	0.877	1.000	3.99	11.9	95.0	0.0024580	4.79	
9	18O2-PFHxS	403 > 102.6	4.09e3	6.130	0.490	1.000	4.10	13.0	104.1	0.0065451	5.13	
10	13C2-PFOA	414.9 > 369.7	2.18e4	13.806	1.105	1.000	4.41	12.7	101.6	0.0017284	3.03	
11	13C8-PFOS	507 > 79.9	8.35e3	15.029	1.202	1.000	4.83	13.2	105.3	0.0005302	3.69	
12	13C5-PFNA	468.2 > 422.9	1.84e4	13.441	1.075	1.000	4.77	13.3	106.6	0.0007915	2.51	
13	13C5-PFHxA	318.0 > 272.9	2.09e4	12.500	1.000	1.000	3.47	12.5	100.0	0.0019168	0.000	
14	13C3-PFHxS	401.9 > 79.9	8.34e3	12.500	1.000	1.000	4.10	12.5	100.0	0.0072795	0.000	
15	13C8-PFOA	421.3 > 376	1.98e4	12.500	1.000	1.000	4.41	12.5	100.0	0.0005717	0.000	
16	13C4-PFOS	503 > 79.9	6.95e3	12.500	1.000	1.000	4.83	12.5	100.0	0.0000000	0.000	
17	13C9-PFNA	472.2 > 426.9	1.71e4	12.500	1.000	1.000	4.77	12.5	100.0	0.0114172	0.000	
18	Total PFBS	299 > 79.7	8.49e3			1.000		27.2				0.0000
19	Total PFHxS	398.9 > 79.6	6.02e3			1.000		25.4				0.0000
20	Total PFOA	413 > 368.7	2.87e4			1.000		21.9				0.0000
21	Total PFOS	499 > 79.9	7.79e3			1.000		25.2				0.0000





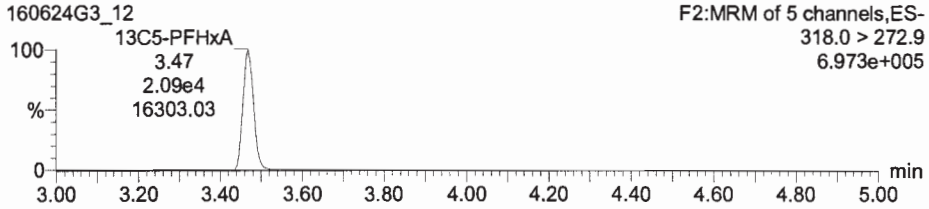
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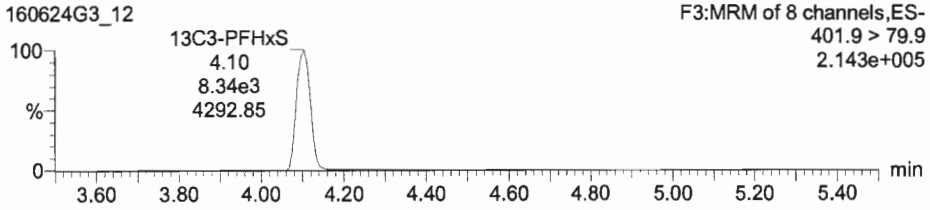
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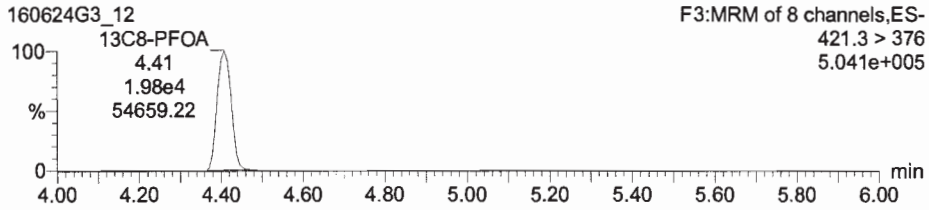
13C5-PFHxA



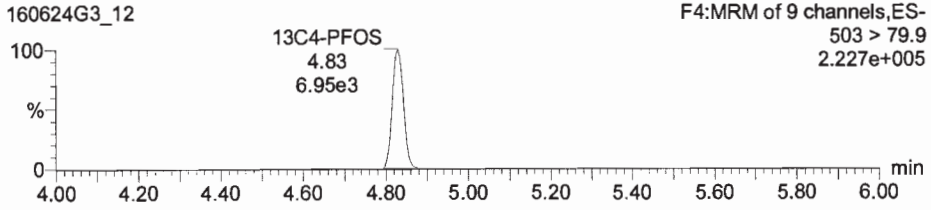
13C3-PFHxS



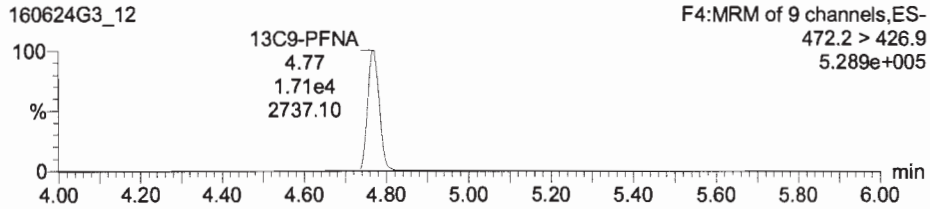
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q2

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999029
Calibration curve: -5.7982e-005 * x^2 + 0.202603 * x
Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	3.48	1.69e2	9.01e3	1.16	15.7	0.234
2	2	160628J1_03_P1_...	2.00	3.47	3.62e2	9.75e3	2.29	14.5	0.232
3	3	160628J1_04_P1_...	5.00	3.47	8.11e2	8.66e3	5.79	15.8	0.234
4	4	160628J1_05_P1_...	10.0	3.48	1.39e3	8.29e3	10.3	3.5	0.209
5	5	160628J1_06_P1_...	25.0	3.47	3.37e3	8.26e3	25.4	1.4	0.204
6	6	160628J1_07_P1_...	50.0	3.47	7.26e3	9.27e3	49.0	-2.0	0.196
7	7	160628J1_08_P1_...	75.0	3.46	9.43e3	7.81e3	76.1	1.5	0.201
8	8	160628J1_09_P1_...	100	3.47	1.23e4	8.08e3	96.3	-3.7	0.190
9	9	160628J1_10_P1_...	200	3.47	2.41e4	7.81e3	202	0.9	0.193

PW
3X 6/29/16
PW
6/29/16
BR 6/29/16 ✓

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999129
Calibration curve: -9.64025e-005 * x^2 + 0.187132 * x
Response type: Internal Std (Ref 8), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	4.37	2.97e2	1.66e4	1.20	19.8	0.224
2	2	160628J1_03_P1_...	2.00	4.35	6.36e2	1.88e4	2.27	13.3	0.212
3	3	160628J1_04_P1_...	5.00	4.35	1.46e3	1.70e4	5.74	14.8	0.214
4	4	160628J1_05_P1_...	10.0	4.36	2.38e3	1.56e4	10.2	2.4	0.191
5	5	160628J1_06_P1_...	25.0	4.35	5.83e3	1.54e4	25.6	2.6	0.189
6	6	160628J1_07_P1_...	50.0	4.35	1.26e4	1.82e4	47.5	-5.0	0.173
7	7	160628J1_08_P1_...	75.0	4.35	1.77e4	1.65e4	74.9	-0.1	0.180
8	8	160628J1_09_P1_...	100	4.35	2.36e4	1.67e4	99.7	-0.3	0.177
9	9	160628J1_10_P1_...	200	4.35	4.51e4	1.67e4	201	0.4	0.168

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998712
Calibration curve: -0.000163172 * x^2 + 0.642268 * x
Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	4.48	1.33e2	2.17e3	1.20	19.8	0.769
2	2	160628J1_03_P1_...	2.00	4.47	2.90e2	2.39e3	2.36	17.8	0.756
3	3	160628J1_04_P1_...	5.00	4.47	6.29e2	2.12e3	5.77	15.5	0.741
4	4	160628J1_05_P1_...	10.0	4.48	1.19e3	2.07e3	11.3	12.7	0.722
5	5	160628J1_06_P1_...	25.0	4.47	2.63e3	2.06e3	25.0	0.1	0.639
6	6	160628J1_07_P1_...	50.0	4.47	5.96e3	2.44e3	48.1	-3.9	0.610
7	7	160628J1_08_P1_...	75.0	4.46	8.10e3	2.15e3	74.8	-0.2	0.629
8	8	160628J1_09_P1_...	100	4.47	1.05e4	2.15e3	97.9	-2.1	0.613
9	9	160628J1_10_P1_...	200	4.47	2.06e4	2.09e3	202	0.8	0.614

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998790
Calibration curve: -0.000525715 * x^2 + 0.423933 * x
Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	4.76	5.61e2	1.48e4	1.12	11.9	0.474
2	2	160628J1_03_P1_...	2.00	4.75	1.06e3	1.36e4	2.31	15.6	0.489
3	3	160628J1_04_P1_...	5.00	4.75	2.71e3	1.44e4	5.57	11.4	0.469
4	4	160628J1_05_P1_...	10.0	4.75	4.19e3	1.24e4	10.1	0.7	0.422
5	5	160628J1_06_P1_...	25.0	4.75	1.03e4	1.35e4	23.2	-7.3	0.382
6	6	160628J1_07_P1_...	50.0	4.75	2.27e4	1.40e4	51.1	2.3	0.406
7	7	160628J1_08_P1_...	75.0	4.75	3.02e4	1.28e4	76.9	2.5	0.393
8	8	160628J1_09_P1_...	100	4.74	3.87e4	1.34e4	96.7	-3.3	0.361
9	9	160628J1_10_P1_...	200	4.75	7.27e4	1.42e4	201	0.6	0.320

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: PFOS
Coefficient of Determination: R^2 = 0.998757
Calibration curve: -0.000490003 * x^2 + 0.684949 * x
Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	5.13	3.82e2	6.03e3	1.16	15.8	0.792
2	2	160628J1_03_P1_...	2.00	5.12	7.96e2	6.36e3	2.29	14.4	0.783
3	3	160628J1_04_P1_...	5.00	5.12	2.13e3	6.90e3	5.66	13.3	0.773
4	4	160628J1_05_P1_...	10.0	5.13	3.58e3	6.13e3	10.8	7.5	0.731
5	5	160628J1_06_P1_...	25.0	5.13	7.87e3	6.00e3	24.3	-2.6	0.655
6	6	160628J1_07_P1_...	50.0	5.13	1.85e4	7.14e3	49.0	-2.0	0.648
7	7	160628J1_08_P1_...	75.0	5.12	2.55e4	6.84e3	71.7	-4.5	0.621
8	8	160628J1_09_P1_...	100	5.12	3.18e4	6.08e3	103	3.1	0.654
9	9	160628J1_10_P1_...	200	5.13	6.29e4	6.70e3	200	0.0	0.587

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998256
Calibration curve: -0.000543361 * x^2 + 0.571042 * x
Response type: Internal Std (Ref 12), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00	5.07	6.82e2	1.24e4	1.20	20.2	0.686
2	2	160628J1_03_P1_...	2.00	5.06	1.53e3	1.34e4	2.50	25.1	0.713
3	3	160628J1_04_P1_...	5.00	5.06	3.78e3	1.43e4	5.81	16.2	0.660
4	4	160628J1_05_P1_...	10.0	5.07	6.38e3	1.26e4	11.2	11.7	0.631
5	5	160628J1_06_P1_...	25.0	5.07	1.37e4	1.29e4	23.7	-5.2	0.529
6	6	160628J1_07_P1_...	50.0	5.06	3.20e4	1.47e4	49.8	-0.4	0.542
7	7	160628J1_08_P1_...	75.0	5.06	4.25e4	1.34e4	74.7	-0.4	0.529
8	8	160628J1_09_P1_...	100	5.06	5.40e4	1.34e4	97.0	-3.0	0.503
9	9	160628J1_10_P1_...	200	5.07	1.01e5	1.35e4	202	1.1	0.466

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: 13C3-PFBS
Response Factor: 0.545966
RRF SD: 0.0193303, Relative SD: 3.54057
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	3.48	9.01e3	1.56e4	13.2	5.4	0.576
2	2	160628J1_03_P1_...	12.5	3.47	9.75e3	1.74e4	12.9	2.8	0.561
3	3	160628J1_04_P1_...	12.5	3.47	8.66e3	1.61e4	12.3	-1.8	0.536
4	4	160628J1_05_P1_...	12.5	3.48	8.29e3	1.51e4	12.5	0.3	0.548
5	5	160628J1_06_P1_...	12.5	3.46	8.26e3	1.48e4	12.8	2.5	0.560
6	6	160628J1_07_P1_...	12.5	3.46	9.27e3	1.67e4	12.7	1.8	0.556
7	7	160628J1_08_P1_...	12.5	3.46	7.81e3	1.46e4	12.3	-1.7	0.537
8	8	160628J1_09_P1_...	12.5	3.47	8.08e3	1.54e4	12.0	-3.7	0.526
9	9	160628J1_10_P1_...	12.5	3.47	7.81e3	1.52e4	11.8	-5.7	0.515

Compound name: 13C4-PFHpA
Response Factor: 1.07533
RRF SD: 0.0319761, Relative SD: 2.97361
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	4.36	1.66e4	1.56e4	12.3	-1.5	1.06
2	2	160628J1_03_P1_...	12.5	4.35	1.88e4	1.74e4	12.6	0.5	1.08
3	3	160628J1_04_P1_...	12.5	4.35	1.70e4	1.61e4	12.2	-2.0	1.05
4	4	160628J1_05_P1_...	12.5	4.36	1.56e4	1.51e4	12.0	-4.2	1.03
5	5	160628J1_06_P1_...	12.5	4.35	1.54e4	1.48e4	12.1	-3.1	1.04
6	6	160628J1_07_P1_...	12.5	4.35	1.82e4	1.67e4	12.7	1.5	1.09
7	7	160628J1_08_P1_...	12.5	4.34	1.65e4	1.46e4	13.1	5.1	1.13
8	8	160628J1_09_P1_...	12.5	4.35	1.67e4	1.54e4	12.6	1.0	1.09
9	9	160628J1_10_P1_...	12.5	4.35	1.67e4	1.52e4	12.8	2.6	1.10

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Compound name: 18O2-PFHxS
Response Factor: 0.307222
RRF SD: 0.0081325, Relative SD: 2.64711
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	4.48	2.17e3	6.89e3	12.8	2.4	0.315
2	2	160628J1_03_P1_...	12.5	4.47	2.39e3	7.96e3	12.2	-2.2	0.300
3	3	160628J1_04_P1_...	12.5	4.46	2.12e3	7.23e3	11.9	-4.4	0.294
4	4	160628J1_05_P1_...	12.5	4.47	2.07e3	6.79e3	12.4	-0.9	0.304
5	5	160628J1_06_P1_...	12.5	4.47	2.06e3	6.69e3	12.5	0.0	0.307
6	6	160628J1_07_P1_...	12.5	4.47	2.44e3	7.73e3	12.9	2.9	0.316
7	7	160628J1_08_P1_...	12.5	4.46	2.15e3	6.77e3	12.9	3.2	0.317
8	8	160628J1_09_P1_...	12.5	4.47	2.15e3	7.15e3	12.2	-2.2	0.301
9	9	160628J1_10_P1_...	12.5	4.47	2.09e3	6.73e3	12.7	1.2	0.311

Compound name: 13C2-PFOA
Response Factor: 1.0416
RRF SD: 0.0655859, Relative SD: 6.29663
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	4.76	1.48e4	1.28e4	13.9	11.0	1.16
2	2	160628J1_03_P1_...	12.5	4.75	1.36e4	1.43e4	11.4	-8.7	0.951
3	3	160628J1_04_P1_...	12.5	4.75	1.44e4	1.33e4	13.0	4.4	1.09
4	4	160628J1_05_P1_...	12.5	4.75	1.24e4	1.25e4	12.0	-4.4	0.996
5	5	160628J1_06_P1_...	12.5	4.74	1.35e4	1.26e4	12.8	2.5	1.07
6	6	160628J1_07_P1_...	12.5	4.74	1.40e4	1.42e4	11.8	-5.3	0.986
7	7	160628J1_08_P1_...	12.5	4.74	1.28e4	1.27e4	12.1	-3.2	1.01
8	8	160628J1_09_P1_...	12.5	4.74	1.34e4	1.31e4	12.2	-2.0	1.02
9	9	160628J1_10_P1_...	12.5	4.75	1.42e4	1.29e4	13.2	5.8	1.10

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Compound name: 13C8-PFOS
Response Factor: 1.02589
RRF SD: 0.0401258, Relative SD: 3.91129
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	5.13	6.03e3	5.62e3	13.1	4.6	1.07
2	2	160628J1_03_P1_...	12.5	5.12	6.36e3	6.54e3	11.8	-5.3	0.971
3	3	160628J1_04_P1_...	12.5	5.12	6.90e3	6.42e3	13.1	4.7	1.07
4	4	160628J1_05_P1_...	12.5	5.13	6.13e3	6.05e3	12.3	-1.2	1.01
5	5	160628J1_06_P1_...	12.5	5.12	6.00e3	5.70e3	12.8	2.6	1.05
6	6	160628J1_07_P1_...	12.5	5.12	7.14e3	7.09e3	12.3	-1.9	1.01
7	7	160628J1_08_P1_...	12.5	5.12	6.84e3	6.84e3	12.2	-2.5	1.00
8	8	160628J1_09_P1_...	12.5	5.12	6.08e3	6.21e3	11.9	-4.5	0.980
9	9	160628J1_10_P1_...	12.5	5.13	6.70e3	6.30e3	12.9	3.6	1.06

Compound name: 13C5-PFNA
Response Factor: 21.1576
RRF SD: 1.3736, Relative SD: 6.49222
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	5.07	1.24e4	6.78e2	10.8	-13.4	18.3
2	2	160628J1_03_P1_...	12.5	5.06	1.34e4	6.73e2	11.8	-5.7	20.0
3	3	160628J1_04_P1_...	12.5	5.06	1.43e4	6.50e2	13.0	4.1	22.0
4	4	160628J1_05_P1_...	12.5	5.07	1.26e4	5.75e2	13.0	3.9	22.0
5	5	160628J1_06_P1_...	12.5	5.07	1.29e4	6.27e2	12.1	-2.8	20.6
6	6	160628J1_07_P1_...	12.5	5.06	1.47e4	6.72e2	13.0	3.8	22.0
7	7	160628J1_08_P1_...	12.5	5.06	1.34e4	6.44e2	12.3	-1.7	20.8
8	8	160628J1_09_P1_...	12.5	5.06	1.34e4	6.04e2	13.1	5.2	22.3
9	9	160628J1_10_P1_...	12.5	5.06	1.35e4	5.99e2	13.3	6.5	22.5

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	3.89	1.56e4	1.56e4	12.5	0.0	1.00
2	2	160628J1_03_P1_...	12.5	3.88	1.74e4	1.74e4	12.5	0.0	1.00
3	3	160628J1_04_P1_...	12.5	3.88	1.61e4	1.61e4	12.5	0.0	1.00
4	4	160628J1_05_P1_...	12.5	3.89	1.51e4	1.51e4	12.5	0.0	1.00
5	5	160628J1_06_P1_...	12.5	3.88	1.48e4	1.48e4	12.5	0.0	1.00
6	6	160628J1_07_P1_...	12.5	3.88	1.67e4	1.67e4	12.5	0.0	1.00
7	7	160628J1_08_P1_...	12.5	3.88	1.46e4	1.46e4	12.5	0.0	1.00
8	8	160628J1_09_P1_...	12.5	3.88	1.54e4	1.54e4	12.5	0.0	1.00
9	9	160628J1_10_P1_...	12.5	3.88	1.52e4	1.52e4	12.5	0.0	1.00

Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	4.48	6.89e3	6.89e3	12.5	0.0	1.00
2	2	160628J1_03_P1_...	12.5	4.47	7.96e3	7.96e3	12.5	0.0	1.00
3	3	160628J1_04_P1_...	12.5	4.46	7.23e3	7.23e3	12.5	0.0	1.00
4	4	160628J1_05_P1_...	12.5	4.47	6.79e3	6.79e3	12.5	0.0	1.00
5	5	160628J1_06_P1_...	12.5	4.47	6.69e3	6.69e3	12.5	0.0	1.00
6	6	160628J1_07_P1_...	12.5	4.46	7.73e3	7.73e3	12.5	0.0	1.00
7	7	160628J1_08_P1_...	12.5	4.46	6.77e3	6.77e3	12.5	0.0	1.00
8	8	160628J1_09_P1_...	12.5	4.47	7.15e3	7.15e3	12.5	0.0	1.00
9	9	160628J1_10_P1_...	12.5	4.47	6.73e3	6.73e3	12.5	0.0	1.00

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	4.76	1.28e4	1.28e4	12.5	0.0	1.00
2	2	160628J1_03_P1_...	12.5	4.75	1.43e4	1.43e4	12.5	0.0	1.00
3	3	160628J1_04_P1_...	12.5	4.74	1.33e4	1.33e4	12.5	0.0	1.00
4	4	160628J1_05_P1_...	12.5	4.75	1.25e4	1.25e4	12.5	0.0	1.00
5	5	160628J1_06_P1_...	12.5	4.74	1.26e4	1.26e4	12.5	0.0	1.00
6	6	160628J1_07_P1_...	12.5	4.74	1.42e4	1.42e4	12.5	0.0	1.00
7	7	160628J1_08_P1_...	12.5	4.74	1.27e4	1.27e4	12.5	0.0	1.00
8	8	160628J1_09_P1_...	12.5	4.74	1.31e4	1.31e4	12.5	0.0	1.00
9	9	160628J1_10_P1_...	12.5	4.74	1.29e4	1.29e4	12.5	0.0	1.00

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	5.13	5.62e3	5.62e3	12.5	0.0	1.00
2	2	160628J1_03_P1_...	12.5	5.12	6.54e3	6.54e3	12.5	0.0	1.00
3	3	160628J1_04_P1_...	12.5	5.12	6.42e3	6.42e3	12.5	0.0	1.00
4	4	160628J1_05_P1_...	12.5	5.12	6.05e3	6.05e3	12.5	0.0	1.00
5	5	160628J1_06_P1_...	12.5	5.12	5.70e3	5.70e3	12.5	0.0	1.00
6	6	160628J1_07_P1_...	12.5	5.12	7.09e3	7.09e3	12.5	0.0	1.00
7	7	160628J1_08_P1_...	12.5	5.12	6.84e3	6.84e3	12.5	0.0	1.00
8	8	160628J1_09_P1_...	12.5	5.12	6.21e3	6.21e3	12.5	0.0	1.00
9	9	160628J1_10_P1_...	12.5	5.12	6.30e3	6.30e3	12.5	0.0	1.00

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5	5.07	6.78e2	6.78e2	12.5	0.0	1.00
2	2	160628J1_03_P1_...	12.5	5.06	6.73e2	6.73e2	12.5	0.0	1.00
3	3	160628J1_04_P1_...	12.5	5.06	6.50e2	6.50e2	12.5	0.0	1.00
4	4	160628J1_05_P1_...	12.5	5.07	5.75e2	5.75e2	12.5	0.0	1.00
5	5	160628J1_06_P1_...	12.5	5.06	6.27e2	6.27e2	12.5	0.0	1.00
6	6	160628J1_07_P1_...	12.5	5.06	6.72e2	6.72e2	12.5	0.0	1.00
7	7	160628J1_08_P1_...	12.5	5.06	6.44e2	6.44e2	12.5	0.0	1.00
8	8	160628J1_09_P1_...	12.5	5.06	6.04e2	6.04e2	12.5	0.0	1.00
9	9	160628J1_10_P1_...	12.5	5.06	5.99e2	5.99e2	12.5	0.0	1.00

Compound name: Total PFBS
Coefficient of Determination: R^2 = 0.999029
Calibration curve: -5.7982e-005 * x^2 + 0.202603 * x
Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00			9.01e3	1.16		
2	2	160628J1_03_P1_...	2.00			9.75e3	2.29		
3	3	160628J1_04_P1_...	5.00			8.66e3	5.80		
4	4	160628J1_05_P1_...	10.0			8.29e3	10.3		
5	5	160628J1_06_P1_...	25.0			8.26e3	25.4		
6	6	160628J1_07_P1_...	50.0			9.27e3	49.0		
7	7	160628J1_08_P1_...	75.0			7.81e3	76.1		
8	8	160628J1_09_P1_...	100			8.08e3	96.3		
9	9	160628J1_10_P1_...	200			7.81e3	202		

Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

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Compound name: Total PFHxS
Coefficient of Determination: R^2 = 0.998712
Calibration curve: -0.000163172 * x^2 + 0.642268 * x
Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00			2.17e3	1.20		
2	2	160628J1_03_P1_...	2.00			2.39e3	2.36		
3	3	160628J1_04_P1_...	5.00			2.12e3	5.77		
4	4	160628J1_05_P1_...	10.0			2.07e3	11.3		
5	5	160628J1_06_P1_...	25.0			2.06e3	25.0		
6	6	160628J1_07_P1_...	50.0			2.44e3	48.1		
7	7	160628J1_08_P1_...	75.0			2.15e3	74.8		
8	8	160628J1_09_P1_...	100			2.15e3	97.9		
9	9	160628J1_10_P1_...	200			2.09e3	202		

Compound name: Total PFOA
Coefficient of Determination: R^2 = 0.998790
Calibration curve: -0.000525715 * x^2 + 0.423933 * x
Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	12.5			1.48e4	1.12		
2	2	160628J1_03_P1_...	12.5			1.36e4	2.34		
3	3	160628J1_04_P1_...	12.5			1.44e4	5.61		
4	4	160628J1_05_P1_...	12.5			1.24e4	10.1		
5	5	160628J1_06_P1_...	12.5			1.35e4	23.2		
6	6	160628J1_07_P1_...	12.5			1.40e4	51.1		
7	7	160628J1_08_P1_...	12.5			1.28e4	77.0		
8	8	160628J1_09_P1_...	12.5			1.34e4	96.8		
9	9	160628J1_10_P1_...	12.5			1.42e4	201		

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Compound name: Total PFOS
Coefficient of Determination: R^2 = 0.998757
Calibration curve: -0.000490003 * x^2 + 0.684949 * x
Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1	160628J1_02_P1_...	1.00			6.03e3	1.19		
2	2	160628J1_03_P1_...	2.00			6.36e3	2.31		
3	3	160628J1_04_P1_...	5.00			6.90e3	5.69		
4	4	160628J1_05_P1_...	10.0			6.13e3	10.8		
5	5	160628J1_06_P1_...	25.0			6.00e3	24.4		
6	6	160628J1_07_P1_...	50.0			7.14e3	49.2		
7	7	160628J1_08_P1_...	75.0			6.84e3	71.8		
8	8	160628J1_09_P1_...	100			6.08e3	103		
9	9	160628J1_10_P1_...	200			6.70e3	201		

	Sample Name	Acquisition Date	Sample ID	Sample Comment
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2	160628J1_02	6/28/2016 16:09:02	ST160628J1-1 PFC CS0 16F0701	PFC CS0 16F0701
3	160628J1_03	6/28/2016 16:21:13	ST160628J1-2 PFC CS1 16F0702	PFC CS1 16F0702
4	160628J1_04	6/28/2016 16:33:26	ST160628J1-3 PFC CS2 16F0703	PFC CS2 16F0703
5	160628J1_05	6/28/2016 16:45:38	ST160628J1-4 PFC CS3 16F0704	PFC CS3 16F0704
6	160628J1_06	6/28/2016 16:57:51	ST160628J1-5 PFC CS3.5 16F0705	PFC CS3.5 16F0705
7	160628J1_07	6/28/2016 17:10:01	ST160628J1-6 PFC CS4 16F0706	PFC CS4 16F0706
8	160628J1_08	6/28/2016 17:22:14	ST160628J1-7 PFC CS4.5 16F0707	PFC CS4.5 16F0707
9	160628J1_09	6/28/2016 17:34:27	ST160628J1-8 PFC CS5 16F0708	PFC CS5 16F0708
10	160628J1_10	6/28/2016 17:46:39	ST160628J1-9 PFC CS6 16F0709	PFC CS6 16F0709
11	160628J1_11	6/28/2016 17:58:52	IPA	IPA
12	160628J1_12	6/28/2016 18:11:06	IPA	IPA
13	160628J1_13	6/28/2016 18:23:17	SS160628J1-1 PFC SSS 16F0907	PFC SSS 16F0907
14	160628J1_14	6/28/2016 18:35:29	IPA	IPA
15	160628J1_15	6/28/2016 18:47:40	B6F0156-BS1	OPR
16	160628J1_16	6/28/2016 18:59:54	B6F0157-BS1	OPR
17	160628J1_17	6/28/2016 19:12:07	IPA	IPA
18	160628J1_18	6/28/2016 19:24:20	B6F0156-BLK1	Method Blank
19	160628J1_19	6/28/2016 19:36:32	B6F0157-BLK1	Method Blank
20	160628J1_20	6/28/2016 19:48:47	1600818-01	OF14-MW07S-0616
21	160628J1_21	6/28/2016 20:01:01	1600818-02	OF14-MW07D-0616
22	160628J1_22	6/28/2016 20:13:11	1600818-03	OF-MW14-0616
23	160628J1_23	6/28/2016 20:25:26	1600818-04	OF-MW16-0616
24	160628J1_24	6/28/2016 20:37:39	1600818-05	OF-FB062016
25	160628J1_25	6/28/2016 20:49:51	1600818-06	OF-EB062016
26	160628J1_26	6/28/2016 21:02:04	1600818-07	OF-MW15-0616
27	160628J1_27	6/28/2016 21:14:15	1600818-08	OF-MW15D-0616
28	160628J1_28	6/28/2016 21:26:29	1600818-09	OF14-MW06-0616
29	160628J1_29	6/28/2016 21:38:43	1600818-10	OF14-MW06D-0616
30	160628J1_30	6/28/2016 21:50:55	IPA	IPA
31	160628J1_31	6/28/2016 22:03:07	ST160628J1-10 PFC CS3.5 16F0705	PFC CS3.5 16F0705
32	160628J1_32	6/28/2016 22:15:20	IPA	IPA
33	160628J1_33	6/28/2016 22:27:29	1600818-11	OF-MW17-0616
34	160628J1_34	6/28/2016 22:39:43	1600818-12	OF-MW12D-0616
35	160628J1_35	6/28/2016 22:51:56	1600818-13	OF-MW12-0616
36	160628J1_36	6/28/2016 23:04:09	1600818-14	OF-MW13D-0616
37	160628J1_37	6/28/2016 23:16:23	1600818-15	OF-MW13DP-0616
38	160628J1_38	6/28/2016 23:28:36	1600818-16	OF-MW11D-0616
39	160628J1_39	6/28/2016 23:40:48	1600820-01	OF-MW10-0616
40	160628J1_40	6/28/2016 23:53:02	1600820-02	OF-MW08-0616
41	160628J1_41	6/29/2016 00:05:15	1600820-03	OF-MW08P-0616
42	160628J1_42	6/29/2016 00:17:24	1600820-04	OF-MW10D-0616
43	160628J1_43	6/29/2016 00:29:38	IPA	IPA
44	160628J1_44	6/29/2016 00:41:49	ST160628J1-11 PFC CS3.5 16F0705	PFC CS3.5 16E0705
45	160628J1_45	6/29/2016 00:54:00	IPA	IPA
46	160628J1_46	6/29/2016 01:06:12	1600820-05	OF-MW09-0616
47	160628J1_47	6/29/2016 01:18:25	1600820-06	OF-MW09D-0616
48	160628J1_48	6/29/2016 01:30:33	B6F0156-MS1	Matrix Spike
49	160628J1_49	6/29/2016 01:42:48	B6F0156-MSD1	Matrix Spike Dup
50	160628J1_50	6/29/2016 01:54:57	B6F0157-MS1	Matrix Spike
51	160628J1_51	6/29/2016 02:07:16	B6F0157-MSD1	Matrix Spike Dup
52	160628J1_52	6/29/2016 02:19:30	1600783-01@1:5	OFPOL-MW-7-0616
53	160628J1_53	6/29/2016 02:31:44	1600783-01@1:20	OFPOL-MW-7-0616
54	160628J1_54	6/29/2016 02:43:54	1600783-02@1:5	OFPOL-MW-4-0616

	Sample Name	Acquisition Date	Sample ID	Sample Comment
55	160628J1_55	6/29/2016 02:56:06	1600783-02@1:20	OFPOL-MW-4-0616
56	160628J1_56	6/29/2016 03:08:22	IPA	IPA
57	160628J1_57	6/29/2016 03:20:34	ST160628J1-12 PFC CS3.5 16F0705	PFC CS3.5 16F0705
58	160628J1_58	6/29/2016 03:32:48	IPA	IPA
59	160628J1_59	6/29/2016 03:44:58	1600783-03@1:10	OFPOL-MW-8-0616
60	160628J1_60	6/29/2016 03:57:12	1600783-04@1:10	OFPOL-MW-6-0616
61	160628J1_61	6/29/2016 04:09:21	1600783-05@1:10	OFPOL-MW-3-0616
62	160628J1_62	6/29/2016 04:21:35	1600783-06@1:10	OFPOL-MW-3P-0616
63	160628J1_63	6/29/2016 04:33:48	1600783-07@1:10	OFPOL-MW-2-0616
64	160628J1_64	6/29/2016 04:45:59	1600783-08@1:5	OF-MW13-0616
65	160628J1_65	6/29/2016 04:58:10	1600783-09@1:5	OF-MW11-0616
66	160628J1_66	6/29/2016 05:10:22	IPA	IPA
67	160628J1_67	6/29/2016 05:22:31	ST160628J1-13 PFC CS3.5 16F0705	PFC CS3.5 16F0705
68	160628J1_68	6/29/2016 05:34:44	IPA	IPA

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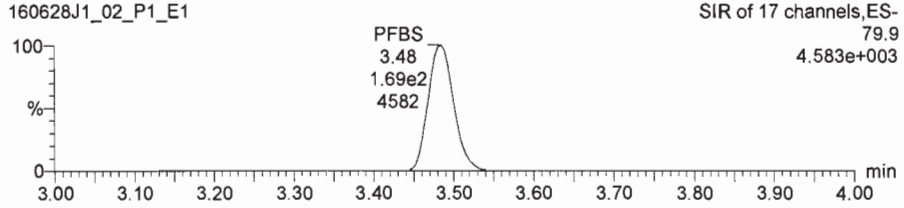
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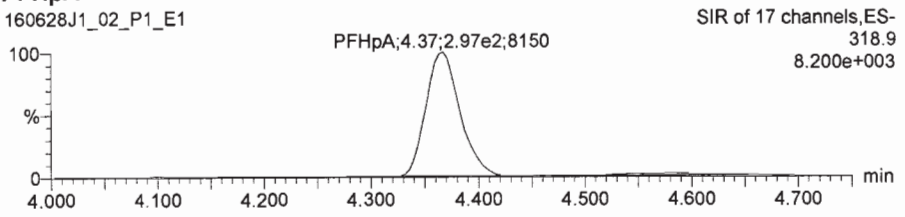
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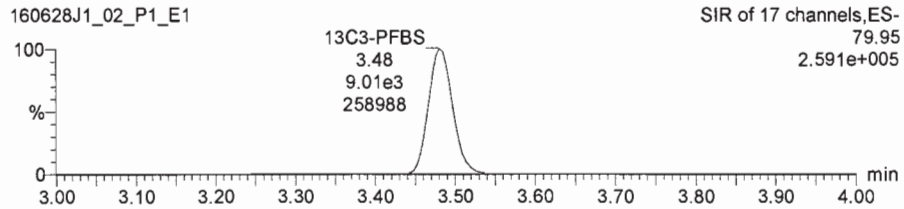
PFBS



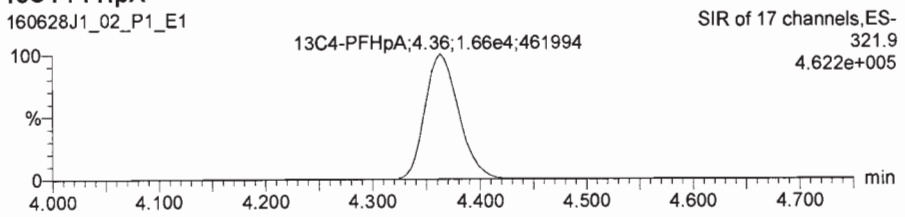
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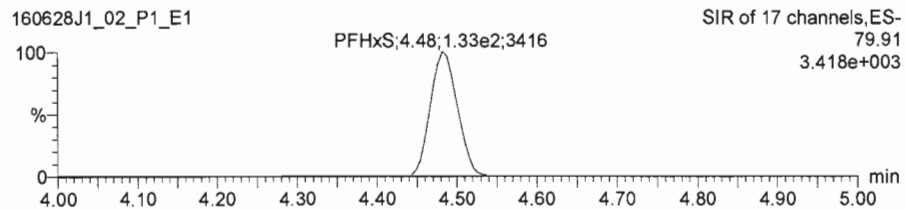
13C3-PFBS



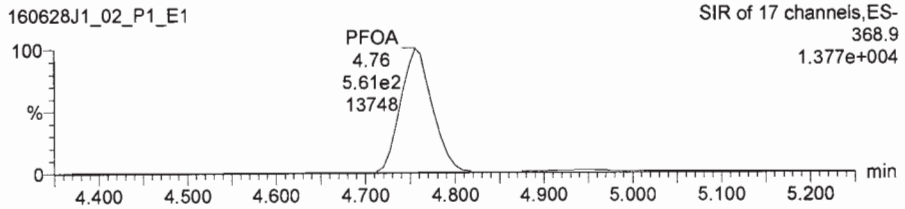
13C4-PFHpA



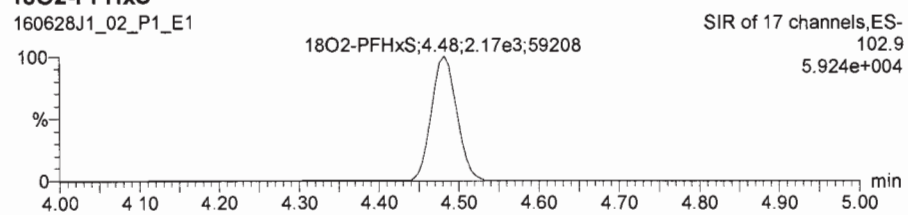
PFHxS



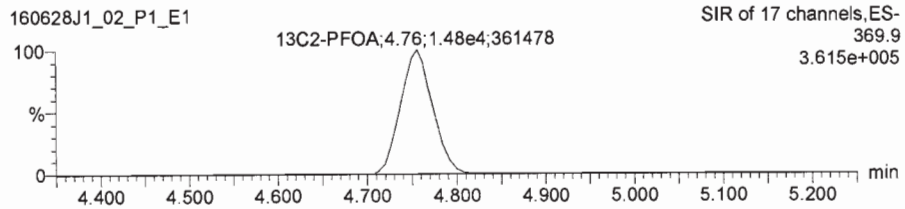
PFOA



18O2-PFHxS



13C2-PFOA

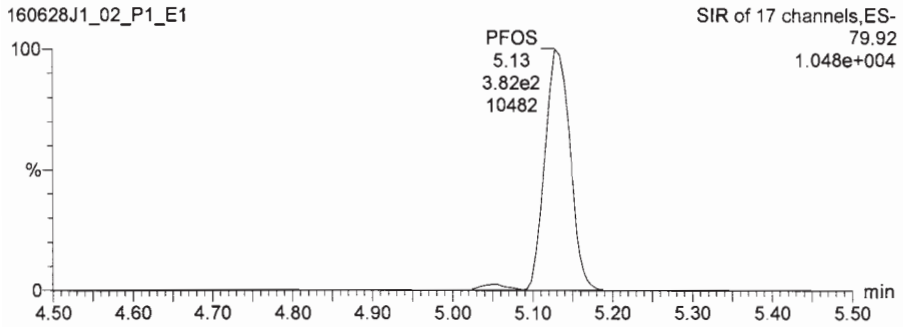


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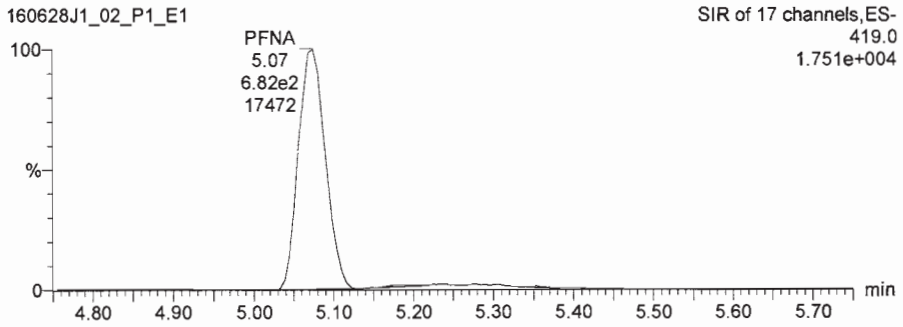
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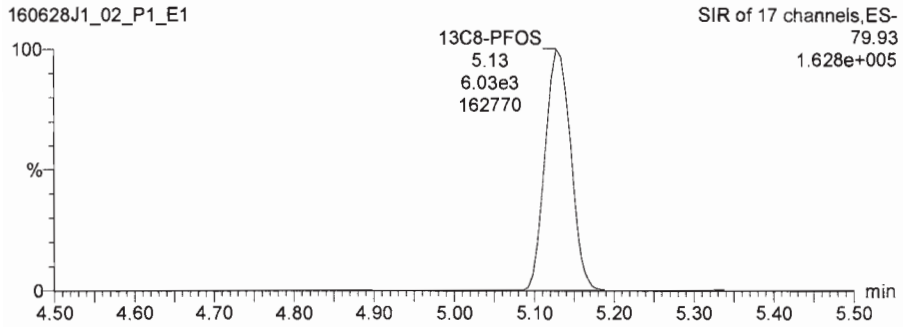
PFOS



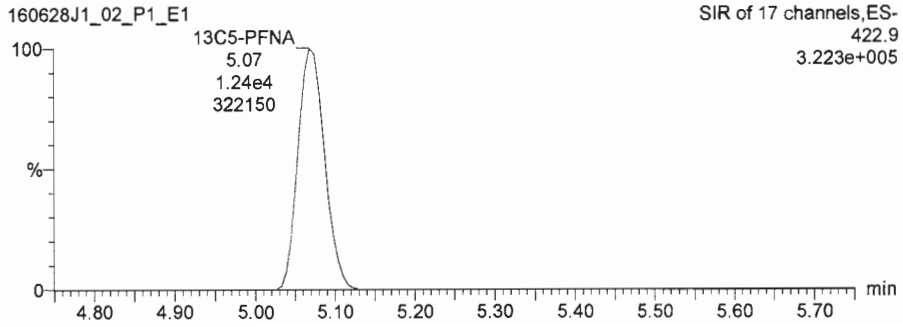
PFNA



13C8-PFOS



13C5-PFNA

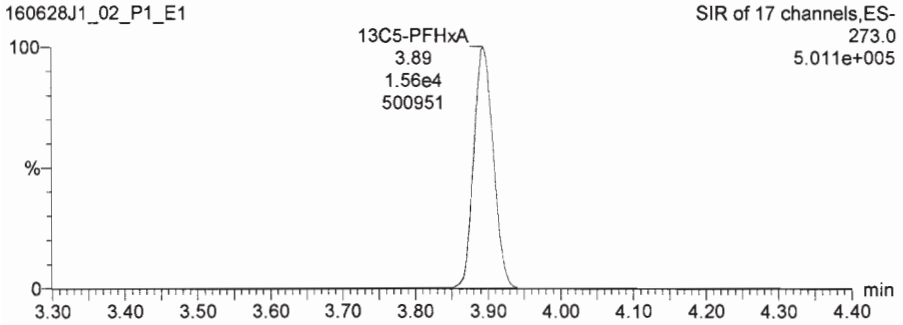


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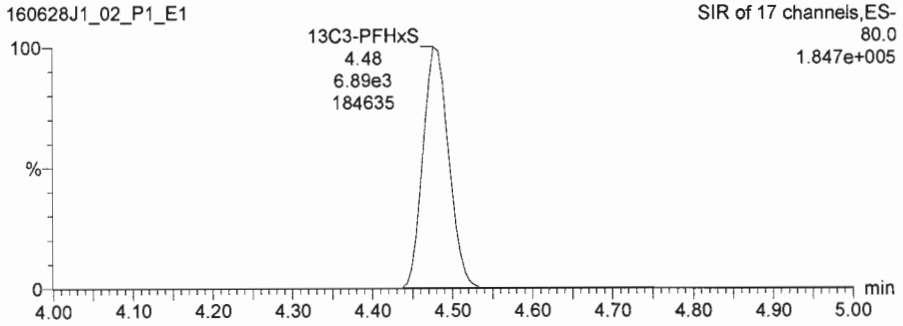
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Name: 160628J1_02.wiff, Date: 28-Jun-2016, Time: 16:09:02, ID: ST160628J1-1 PFC CS0 16F0701, Description: PFC CS0 16F0701

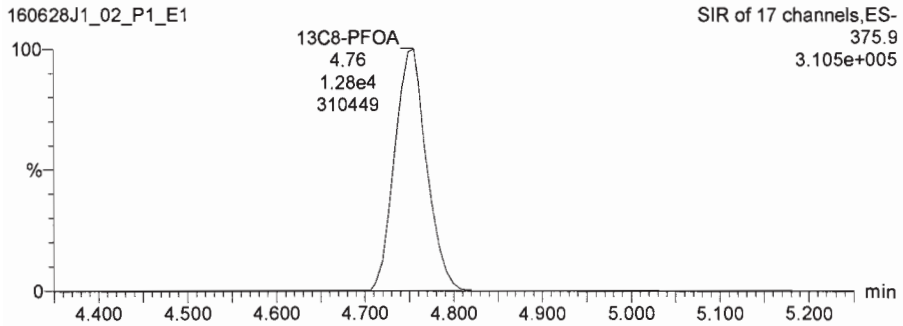
13C5-PFHxA



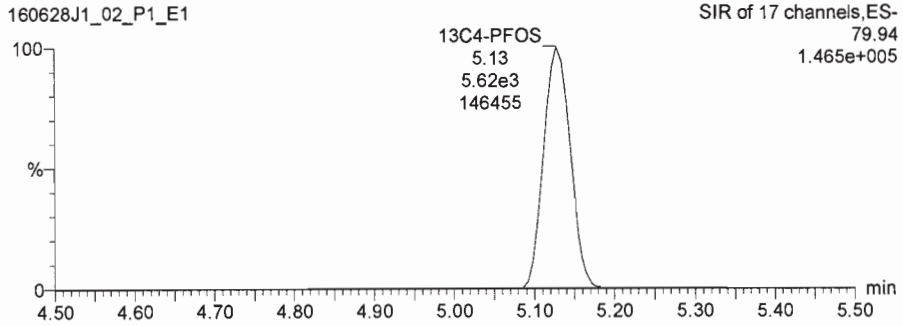
13C3-PFHxS



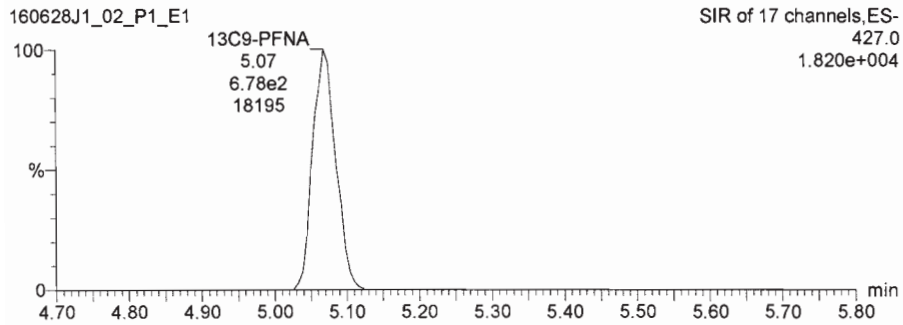
13C8-PFOA



13C4-PFOS



13C9-PFNA

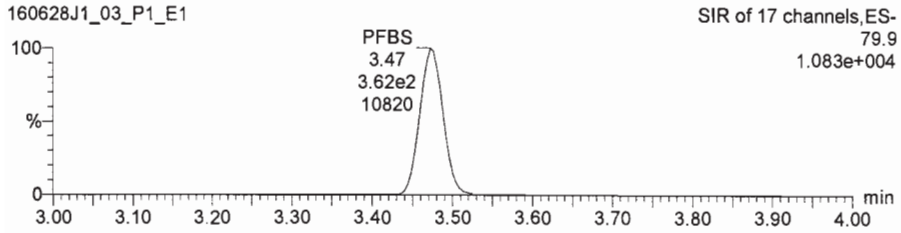


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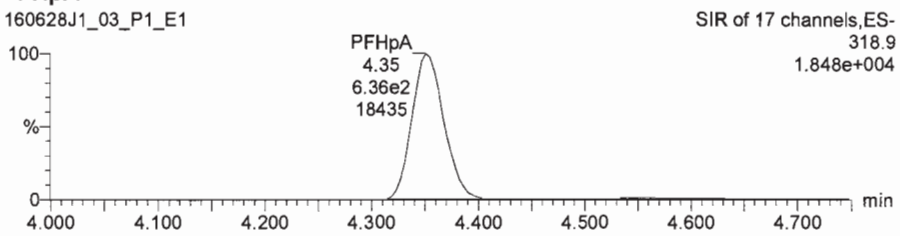
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Name: 160628J1_03.wiff, Date: 28-Jun-2016, Time: 16:21:13, ID: ST160628J1-2 PFC CS1 16F0702, Description: PFC CS1 16F0702

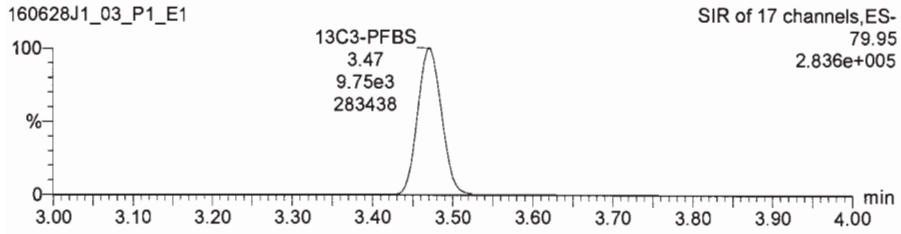
PFBS



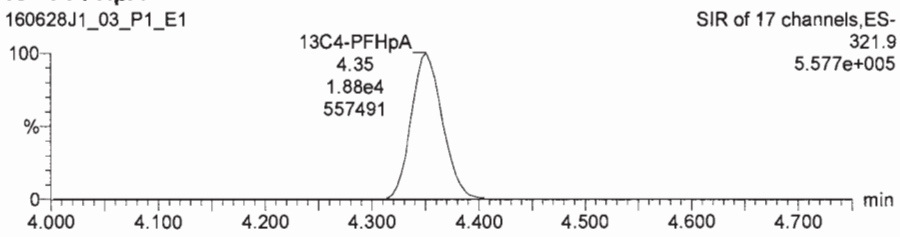
PFHpA



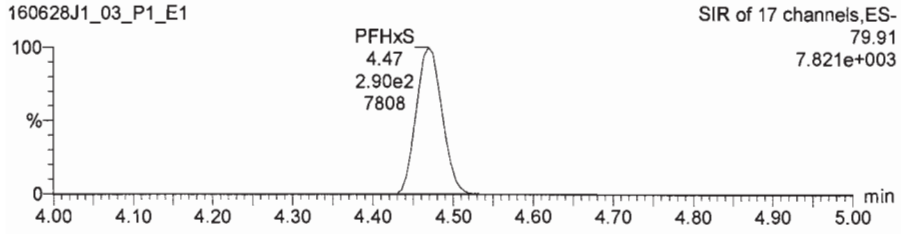
13C3-PFBS



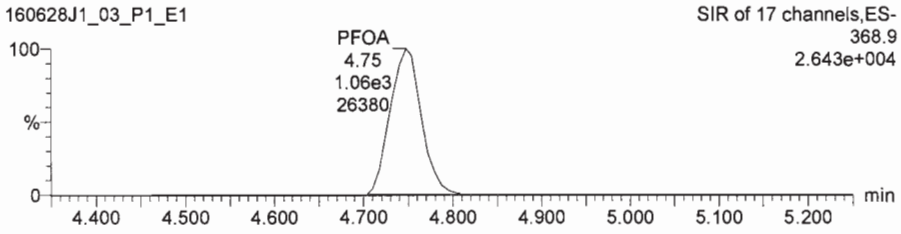
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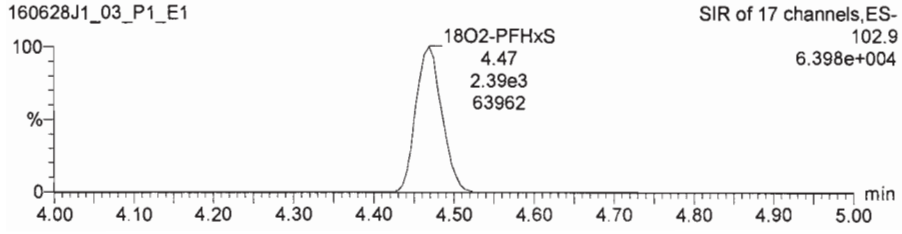
PFHxS



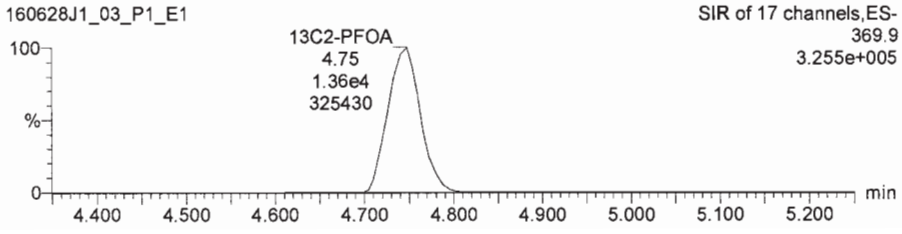
PFOA



18O2-PFHxS



13C2-PFOA

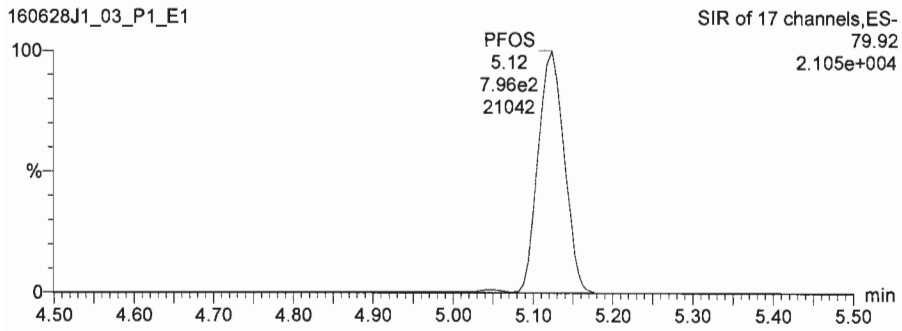


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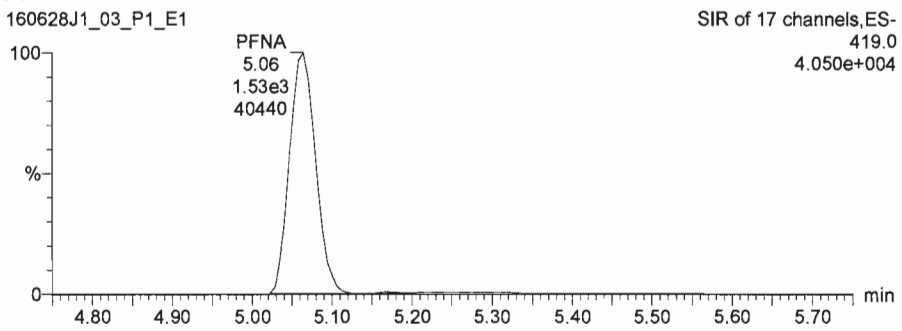
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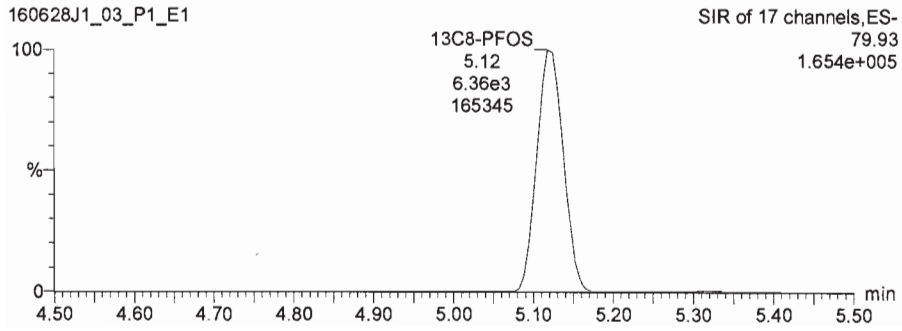
PFOS



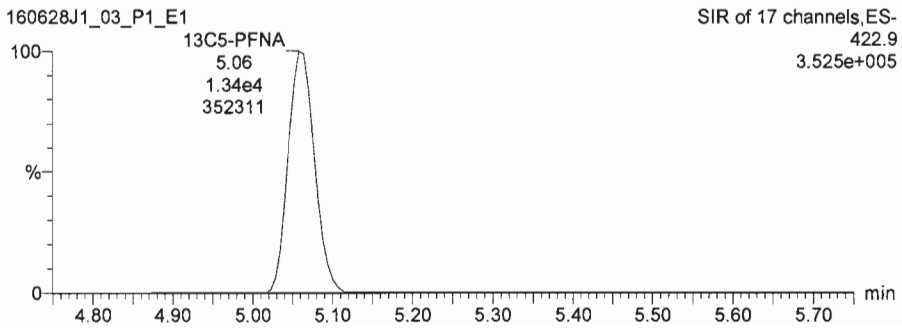
PFNA



13C8-PFOS



13C5-PFNA

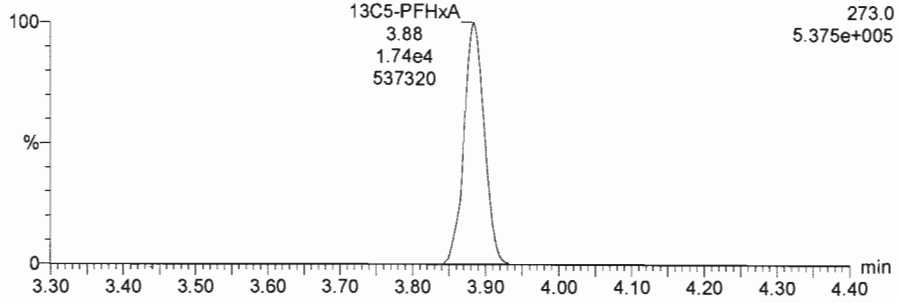


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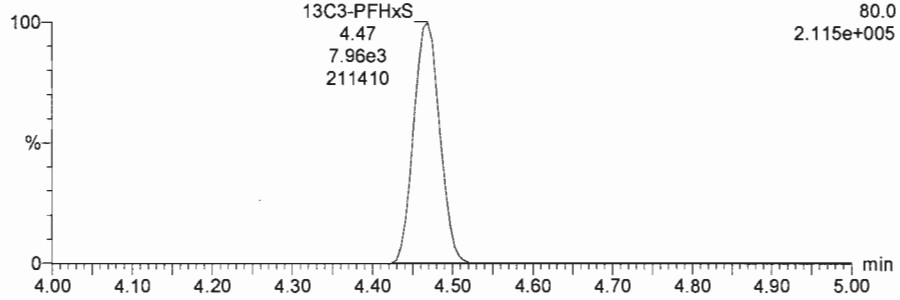
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Name: 160628J1_03.wiff, Date: 28-Jun-2016, Time: 16:21:13, ID: ST160628J1-2 PFC CS1 16F0702, Description: PFC CS1 16F0702

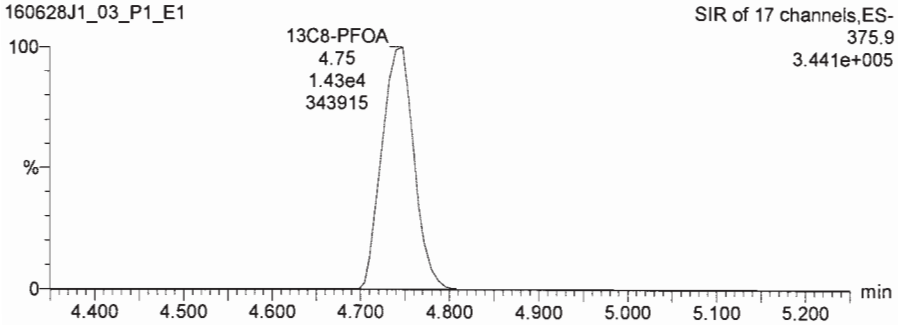
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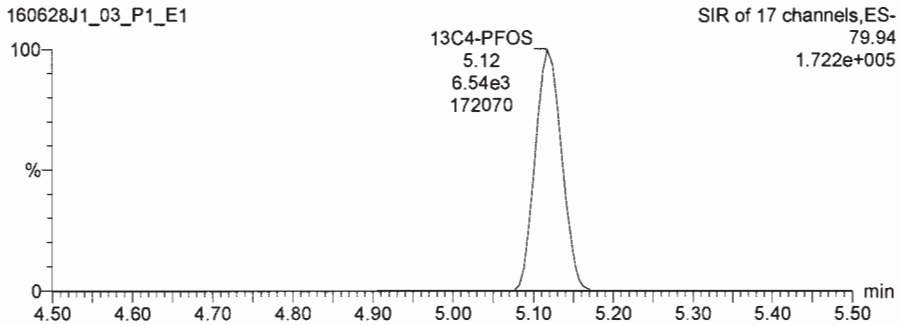
13C3-PFHxS



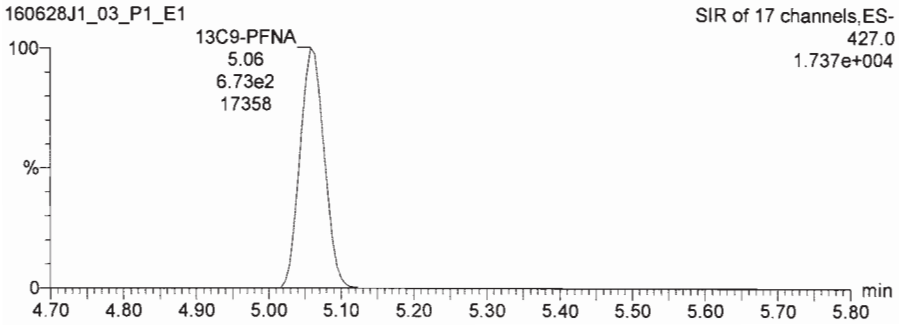
13C8-PFOA



13C4-PFOS



13C9-PFNA

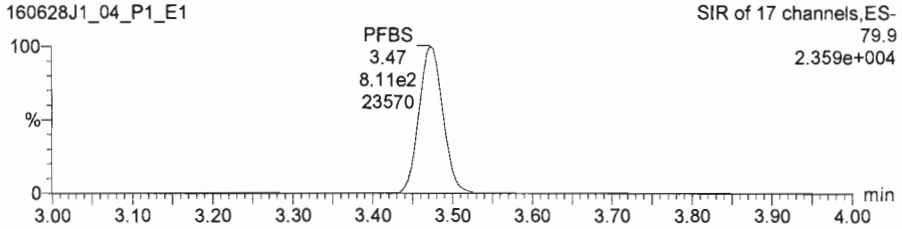


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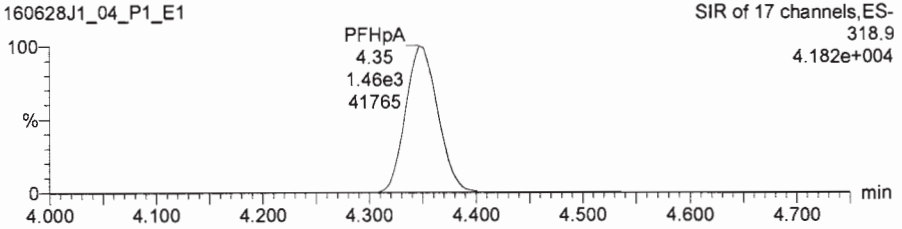
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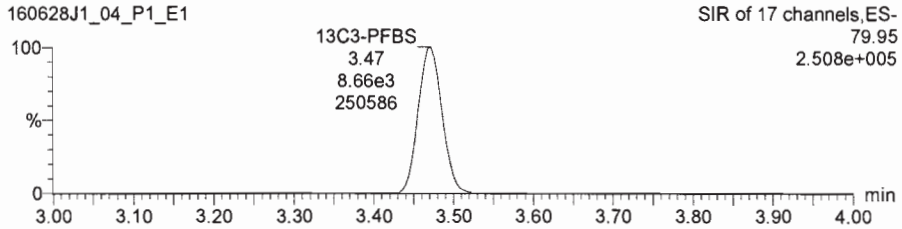
PFBS



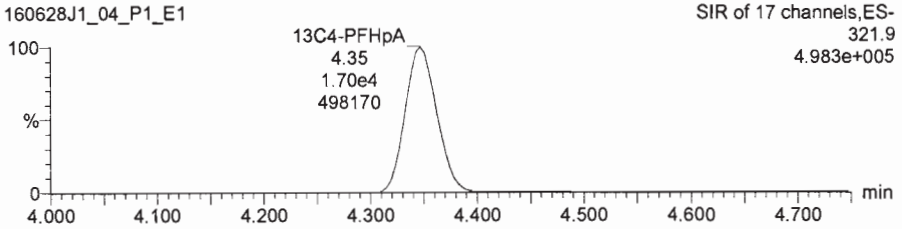
PFHpA



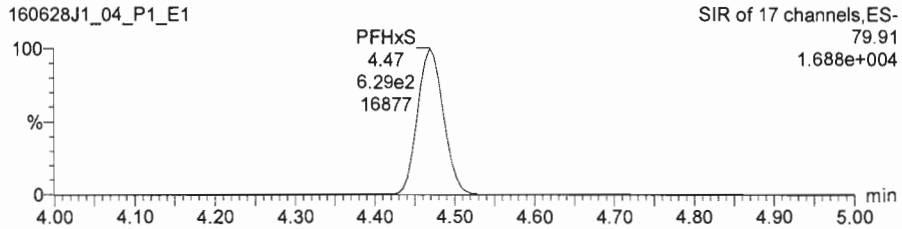
13C3-PFBS



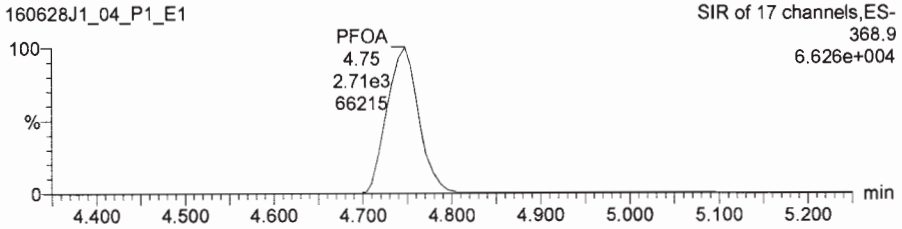
13C4-PFHpA



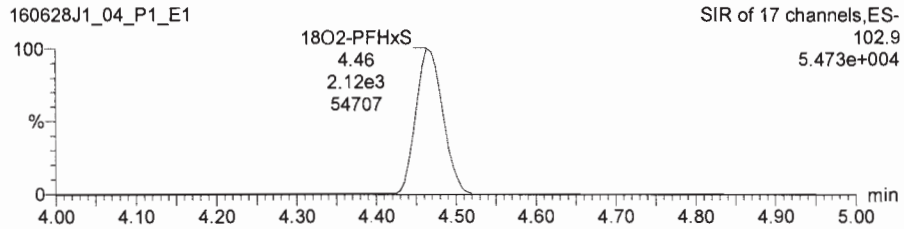
PFHxS



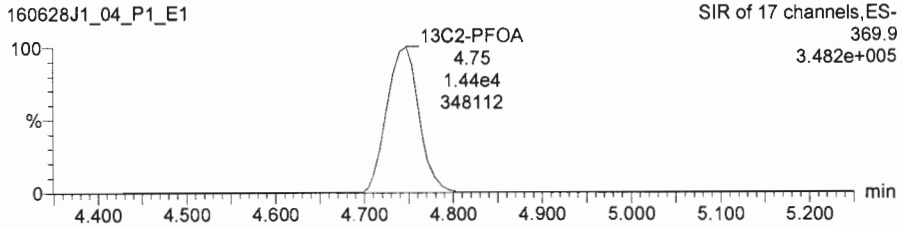
PFOA



18O2-PFHxS



13C2-PFOA

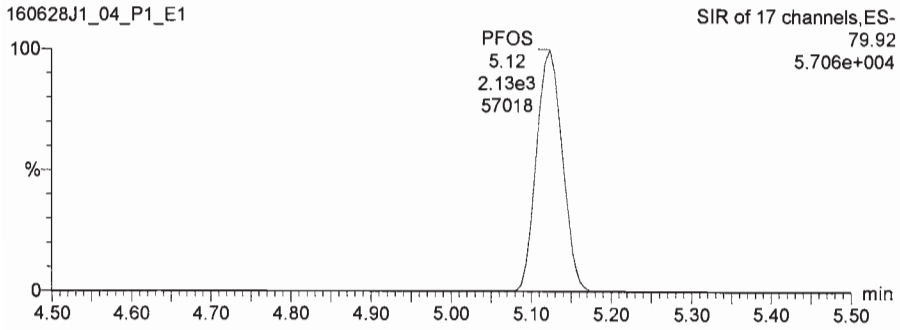


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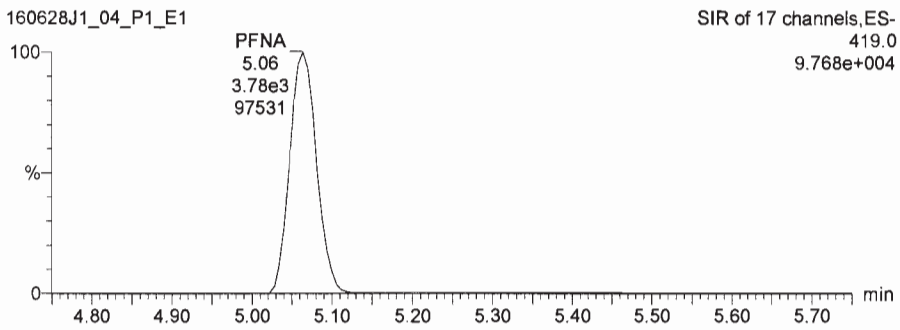
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Name: 160628J1_04.wiff, Date: 28-Jun-2016, Time: 16:33:26, ID: ST160628J1-3 PFC CS2 16F0703, Description: PFC CS2 16F0703

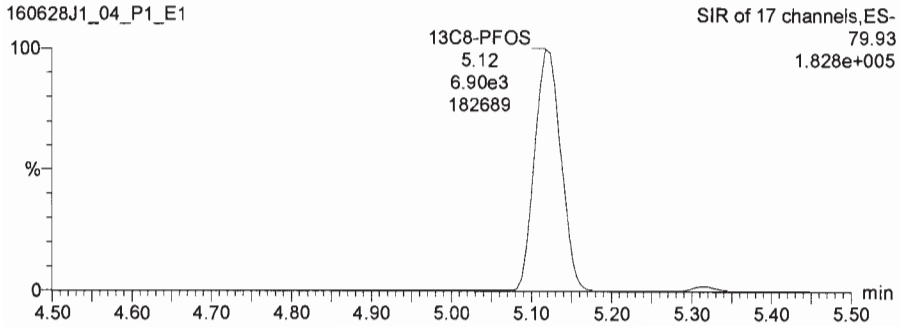
PFOS



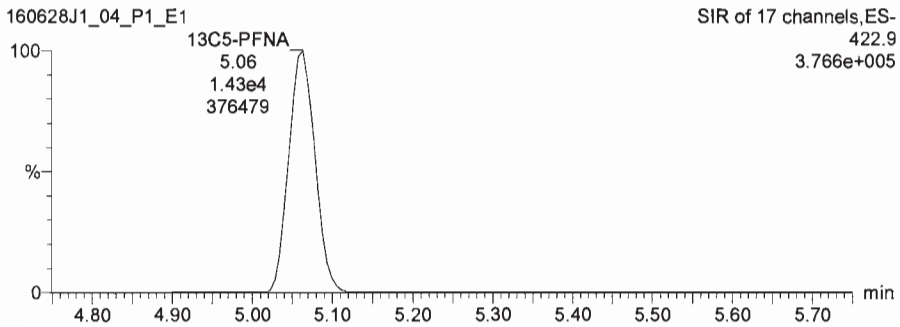
PFNA



13C8-PFOS



13C5-PFNA

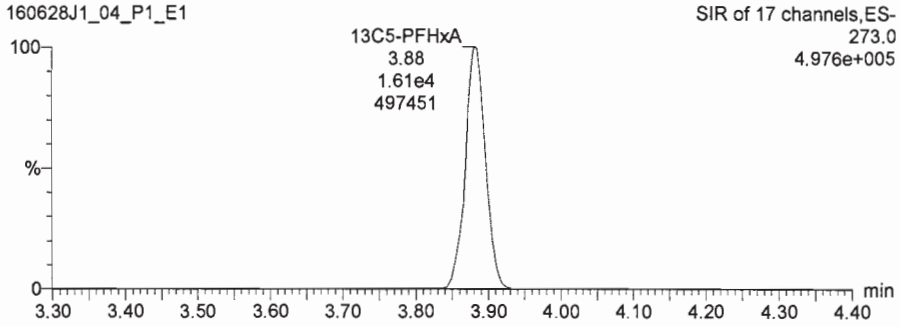


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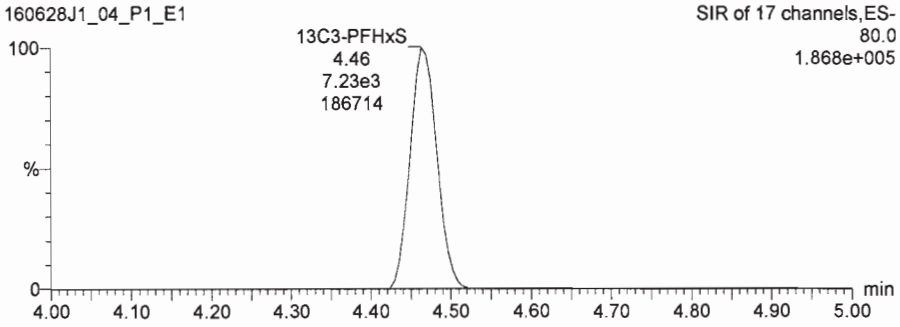
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Name: 160628J1_04.wiff, Date: 28-Jun-2016, Time: 16:33:26, ID: ST160628J1-3 PFC CS2 16F0703, Description: PFC CS2 16F0703

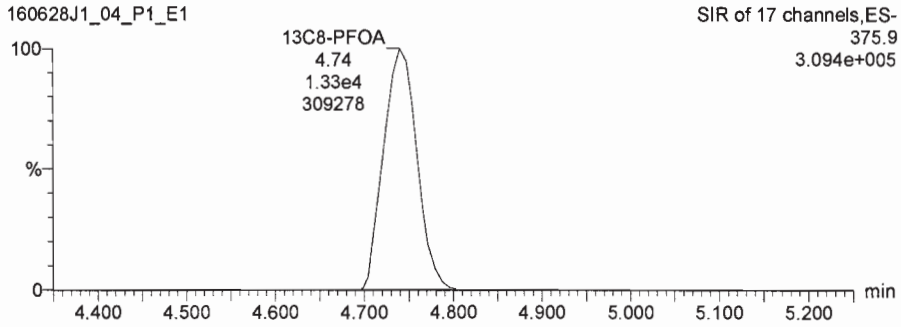
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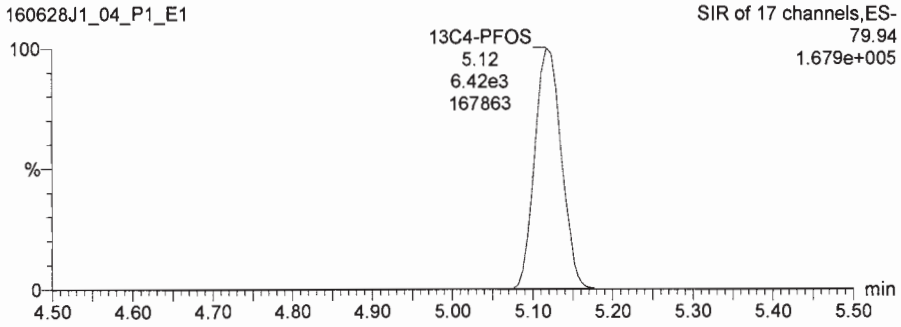
13C3-PFHxS



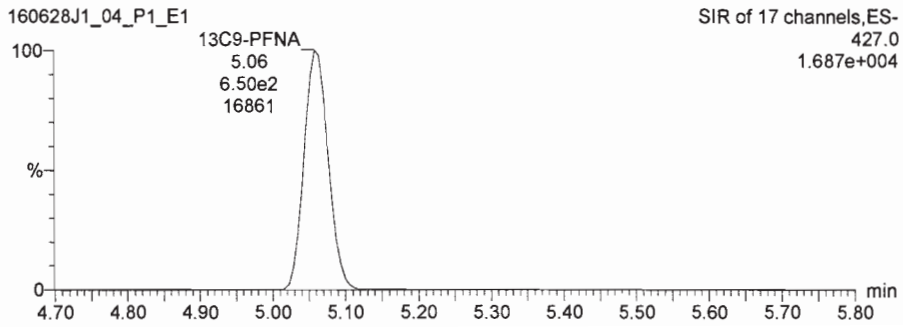
13C8-PFOA



13C4-PFOS



13C9-PFNA

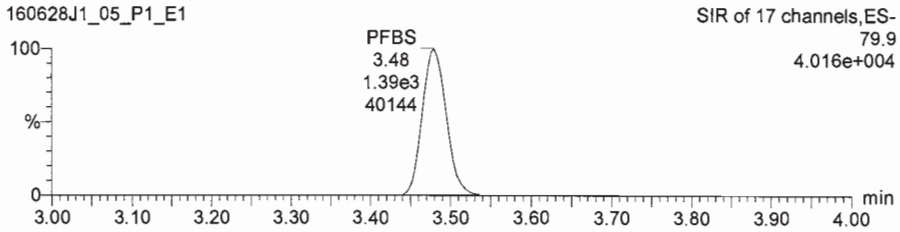


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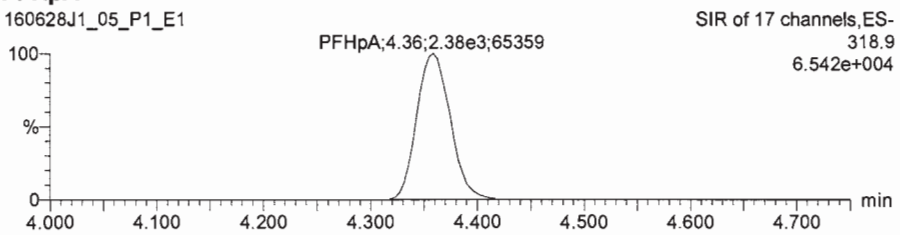
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Printed: Wednesday, June 29, 2016 11:56:13 Pacific Daylight Time

Name: 160628J1_05.wiff, Date: 28-Jun-2016, Time: 16:45:38, ID: ST160628J1-4 PFC CS3 16F0704, Description: PFC CS3 16F0704

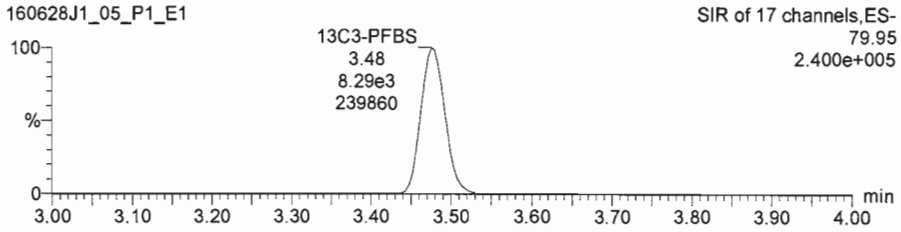
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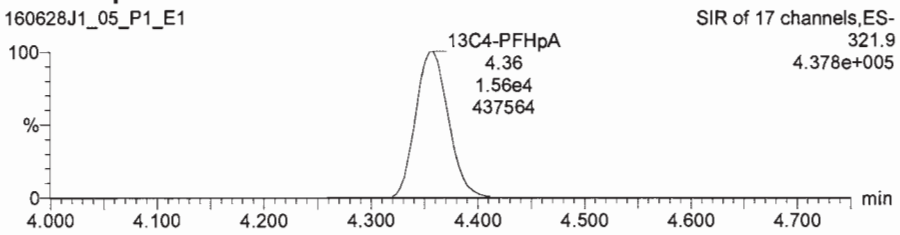
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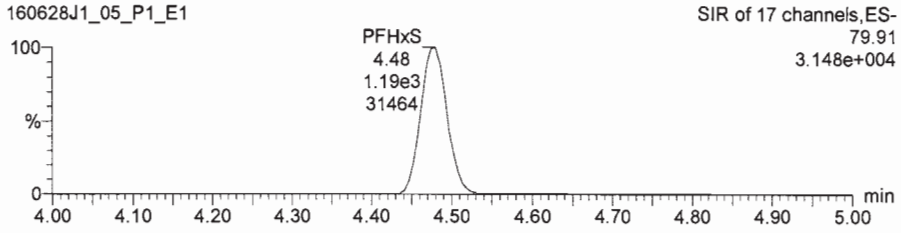
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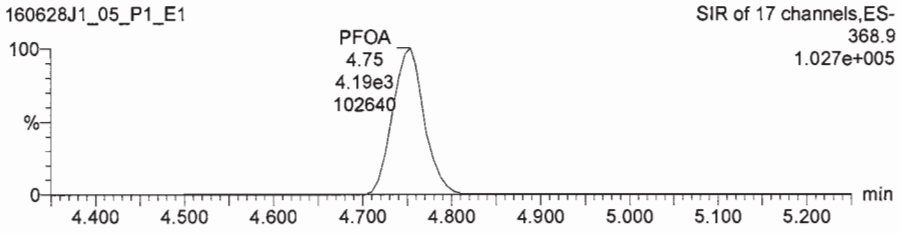
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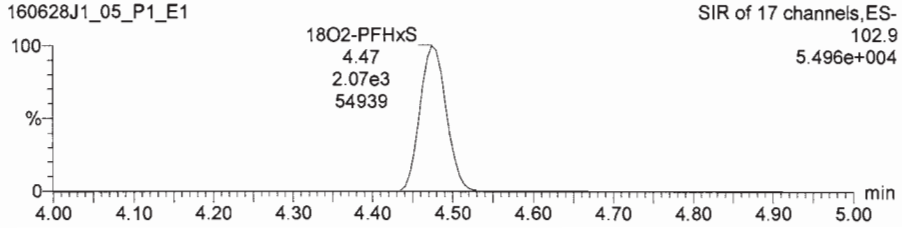
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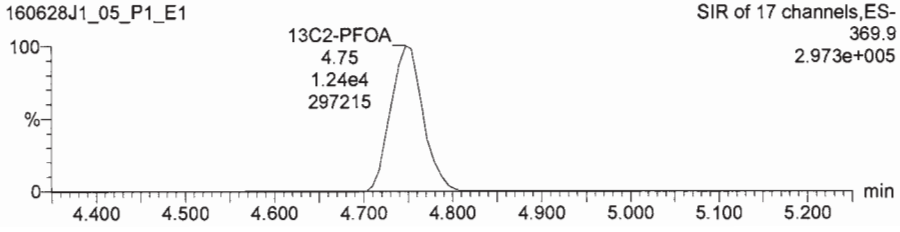
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18O2-PFHxS



13C2-PFOA

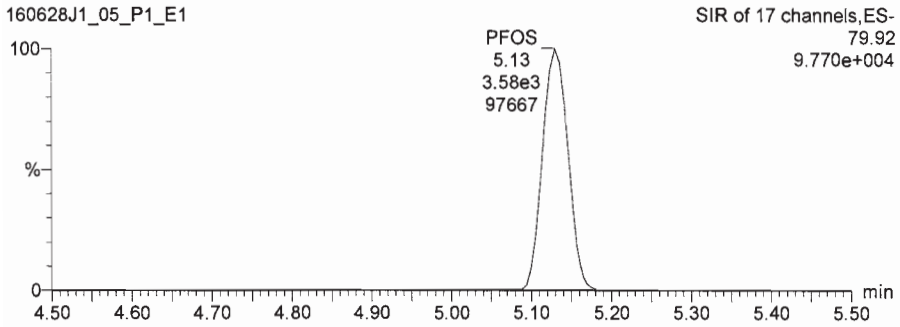


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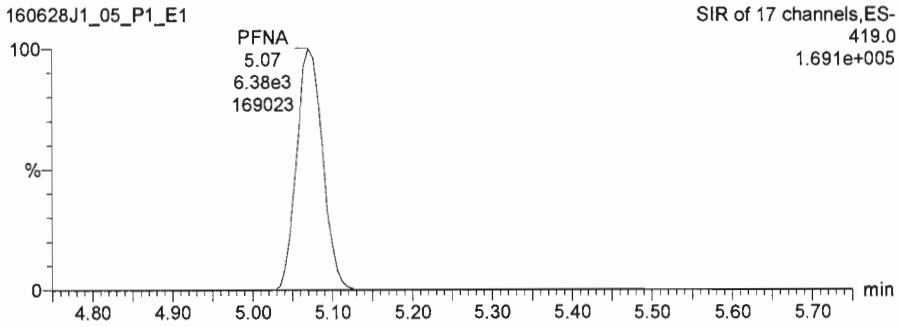
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Name: 160628J1_05.wiff, Date: 28-Jun-2016, Time: 16:45:38, ID: ST160628J1-4 PFC CS3 16F0704, Description: PFC CS3 16F0704

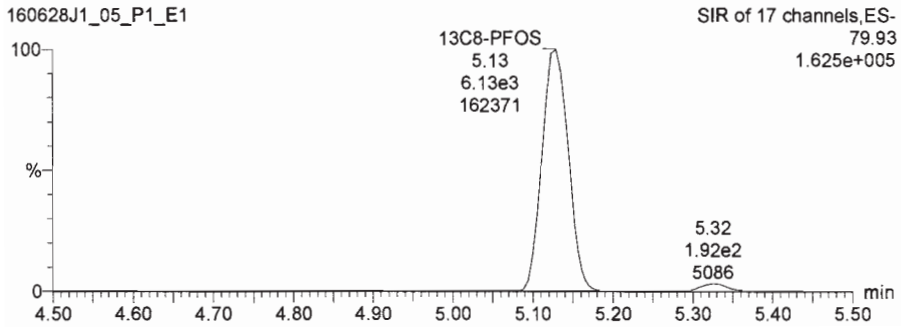
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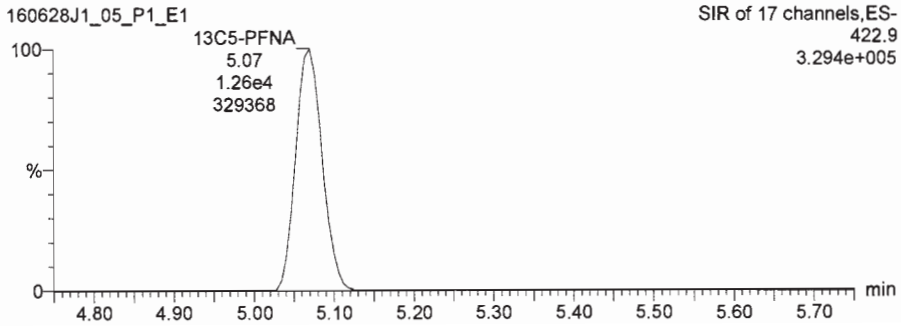
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13C8-PFOS



13C5-PFNA

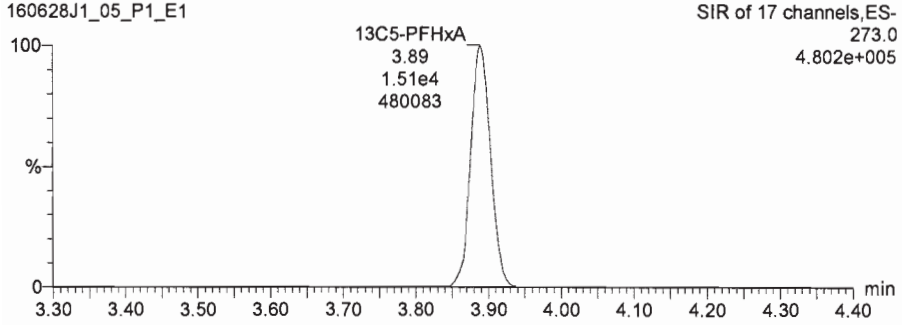


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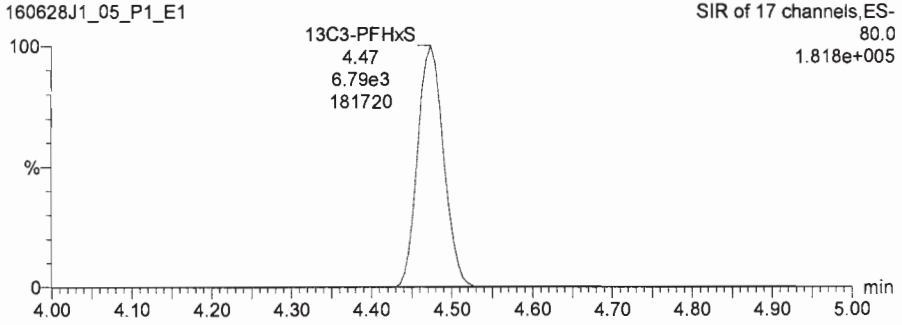
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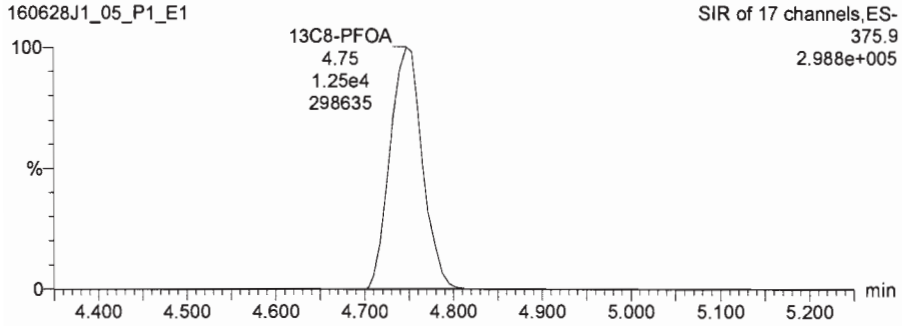
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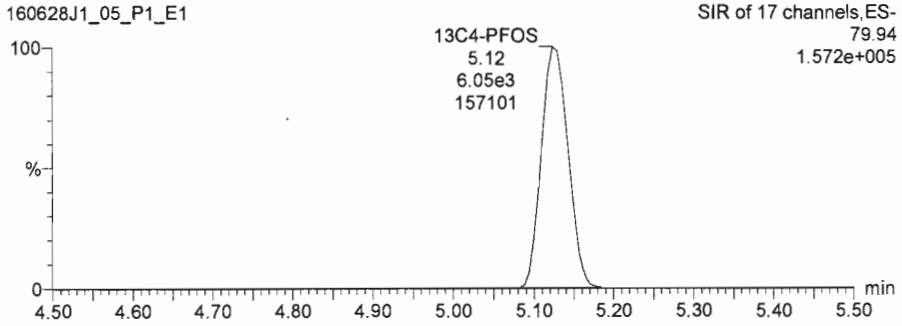
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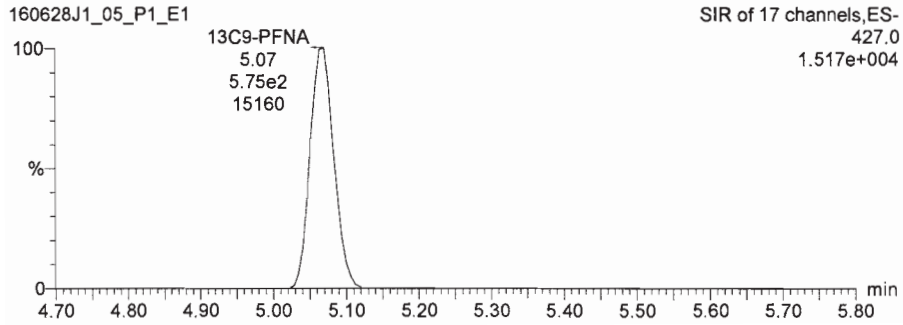
13C8-PFOA



13C4-PFOS



13C9-PFNA

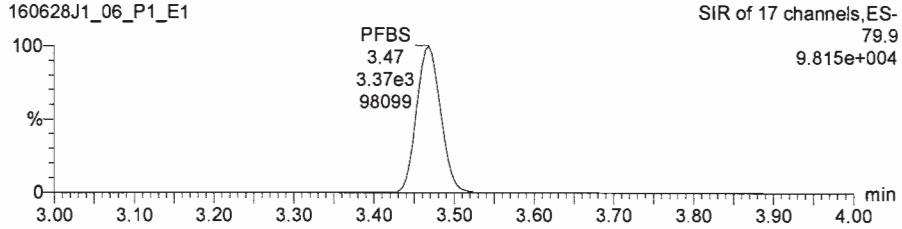


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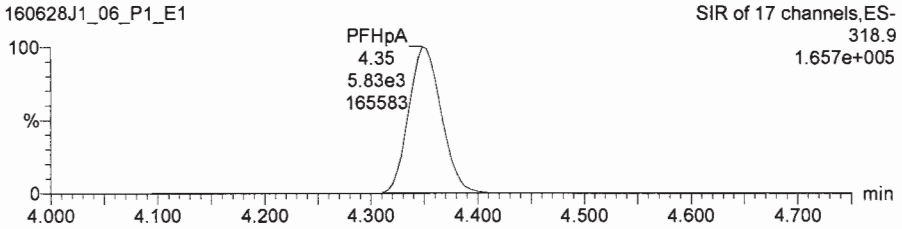
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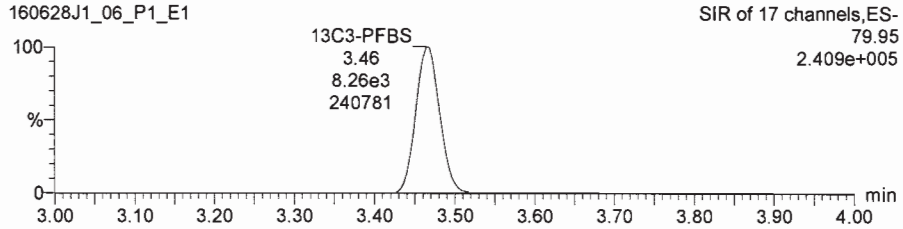
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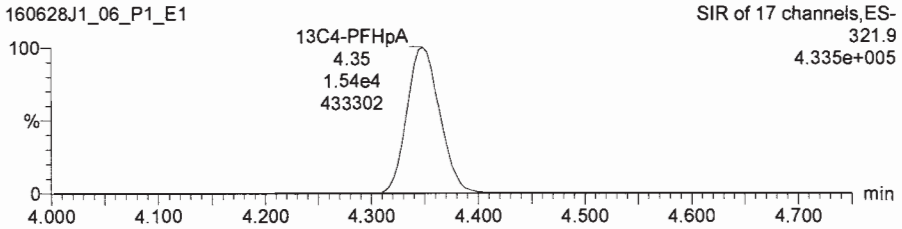
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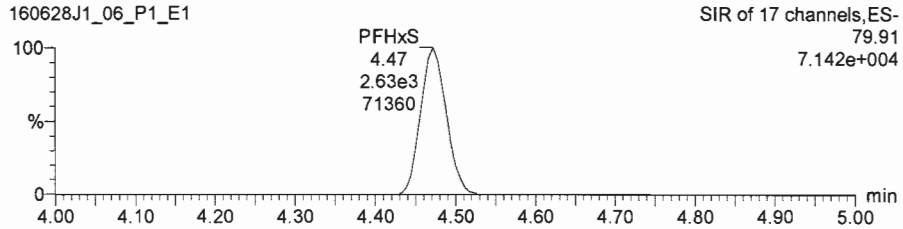
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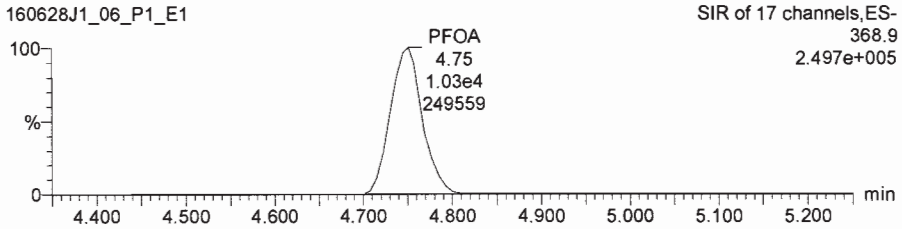
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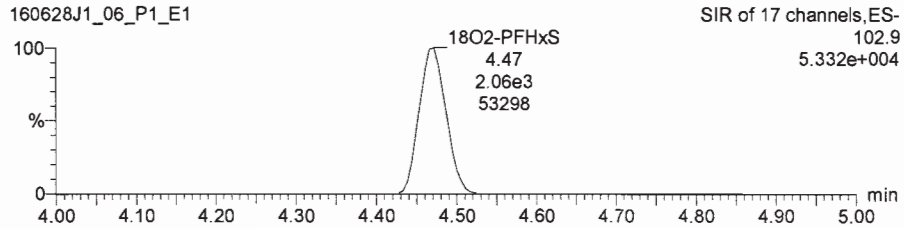
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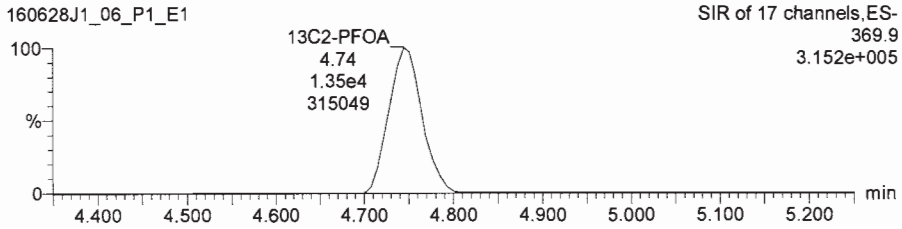
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18O2-PFHxS



13C2-PFOA

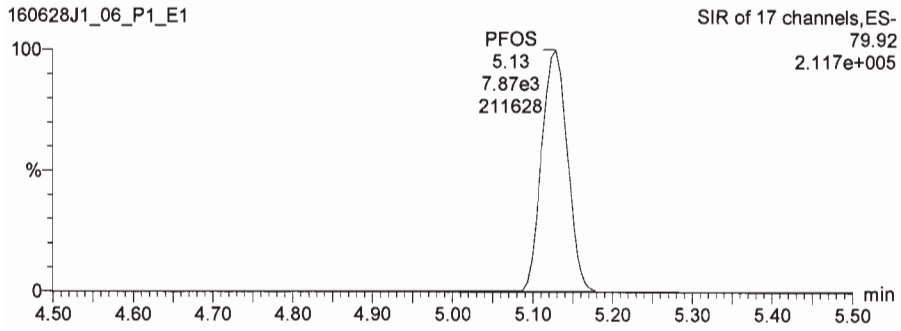


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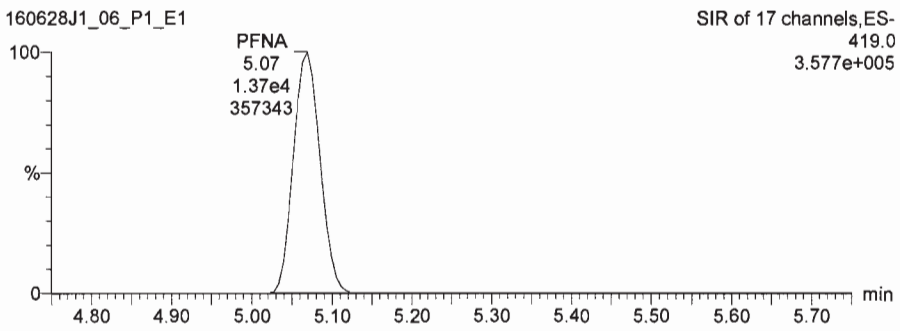
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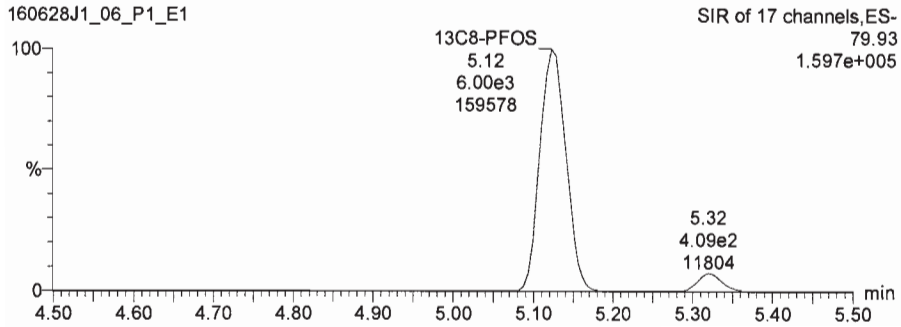
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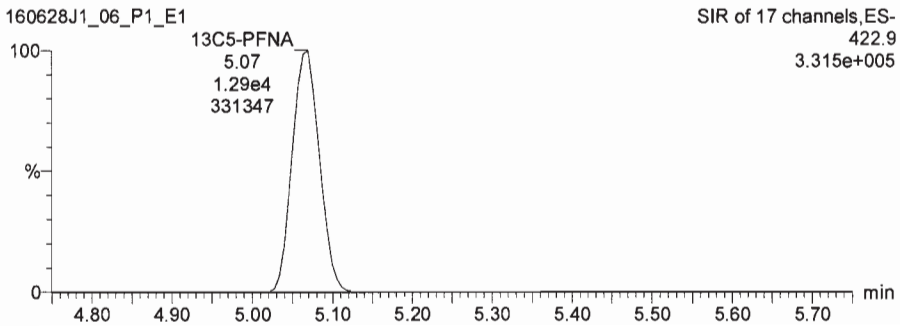
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13C8-PFOS



13C5-PFNA

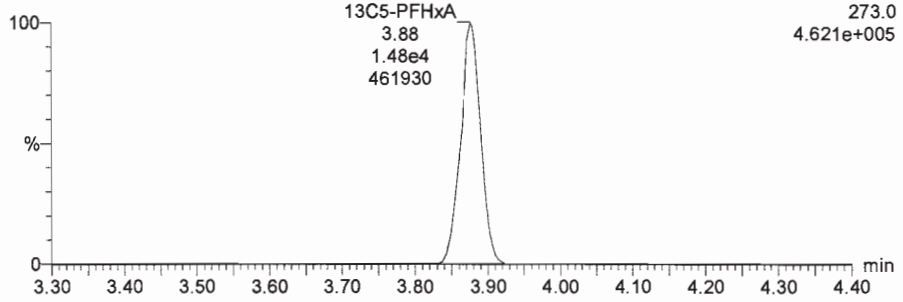


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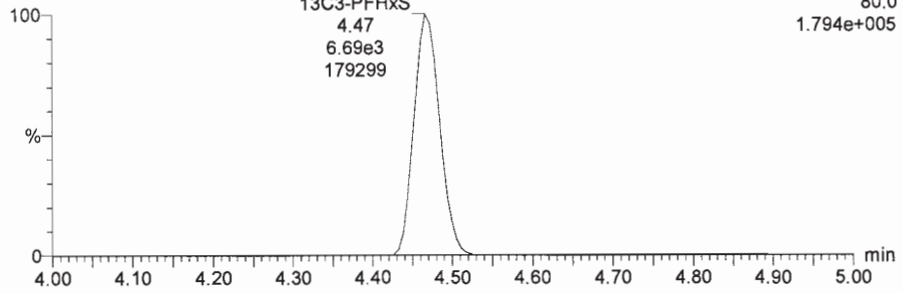
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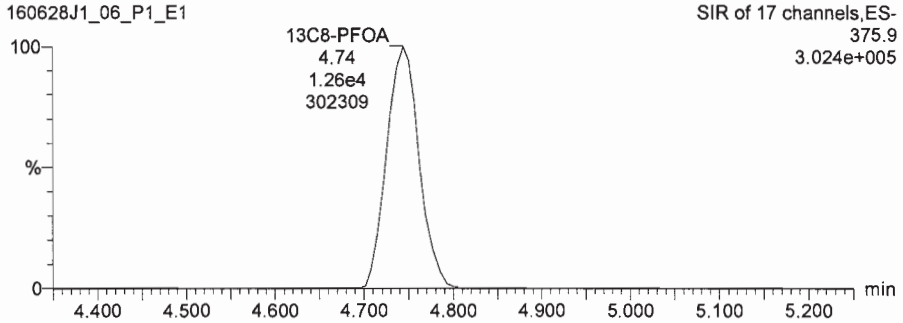
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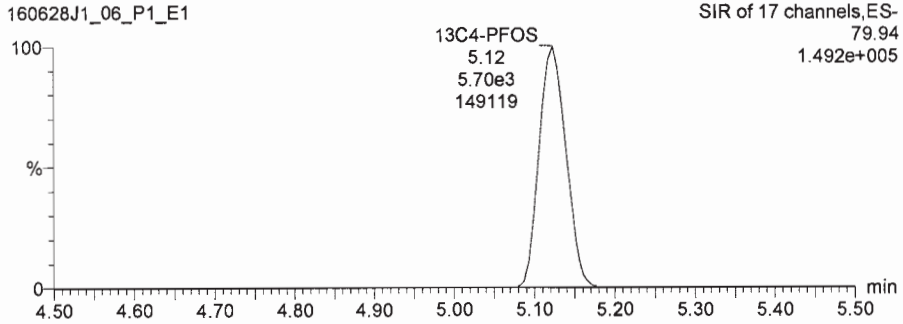
13C3-PFHxS



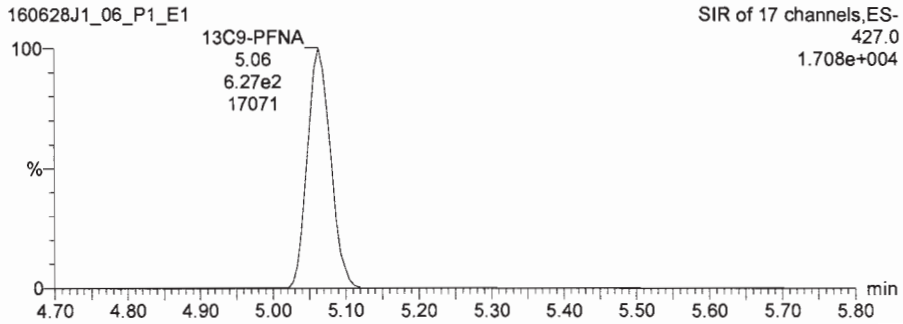
13C8-PFOA



13C4-PFOS



13C9-PFNA

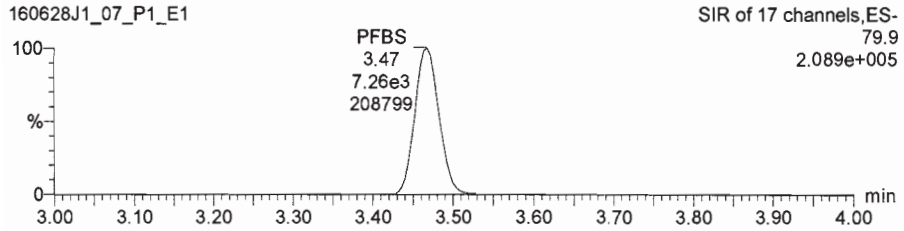


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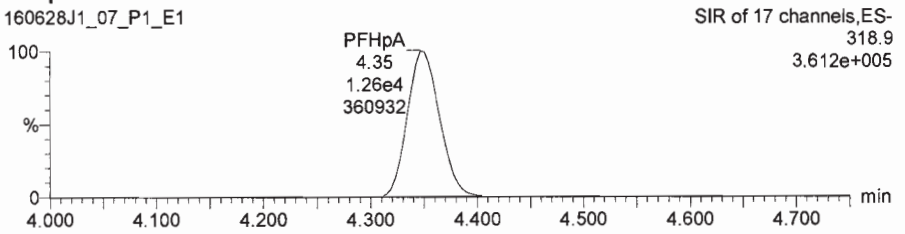
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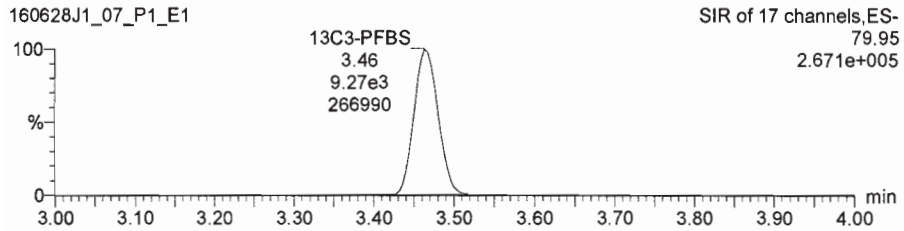
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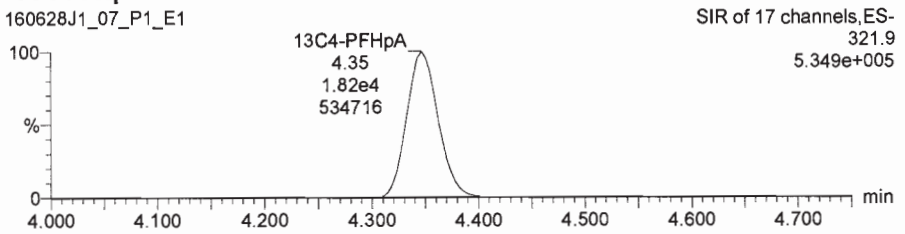
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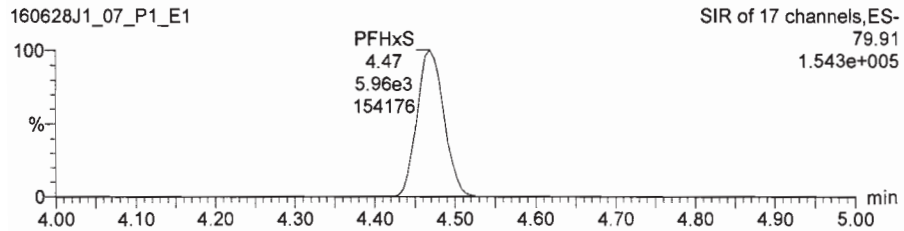
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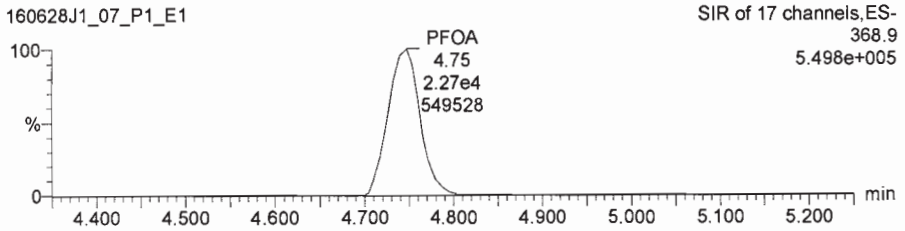
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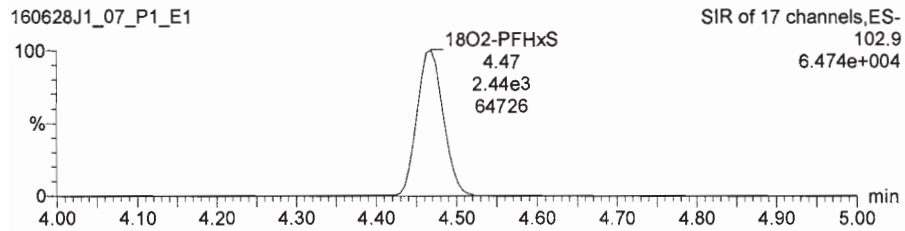
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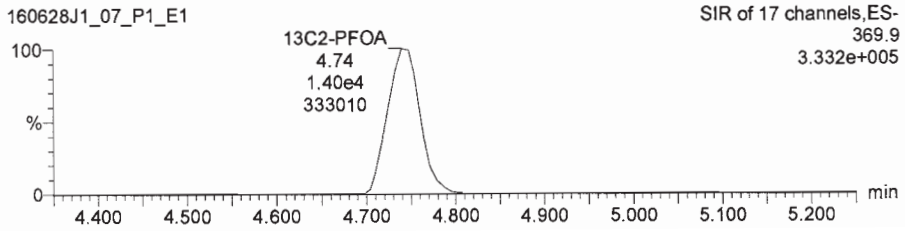
PFOA



18O2-PFHxS



13C2-PFOA

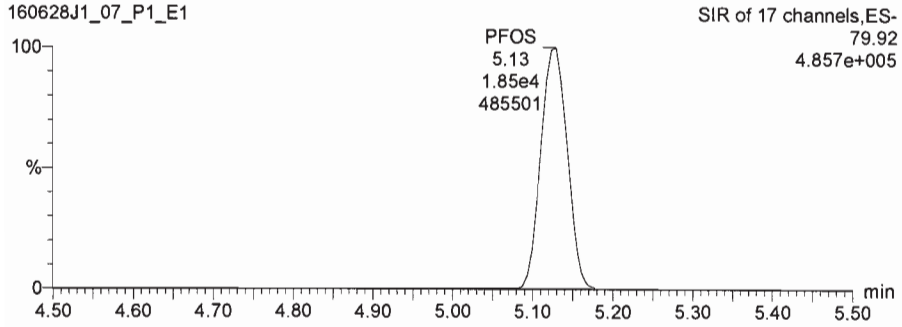


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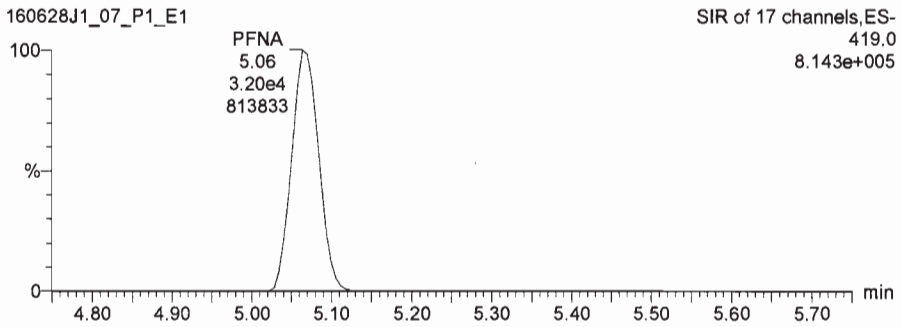
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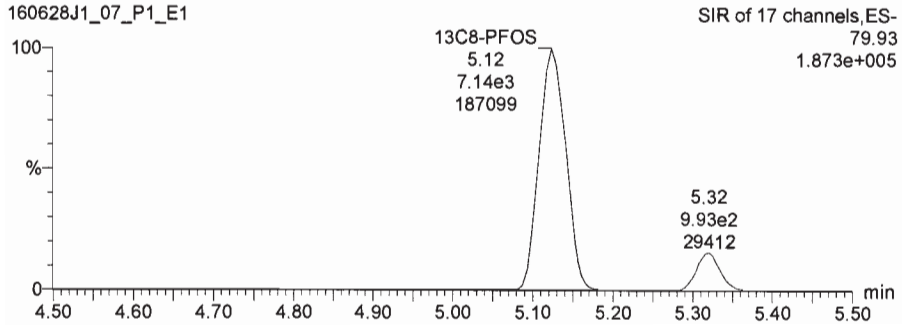
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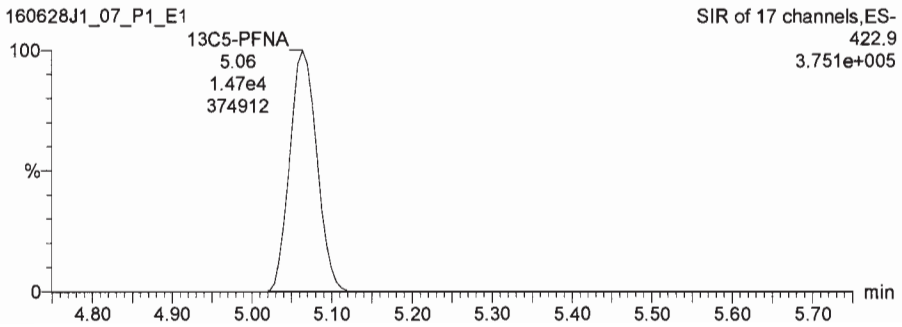
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13C8-PFOS



13C5-PFNA

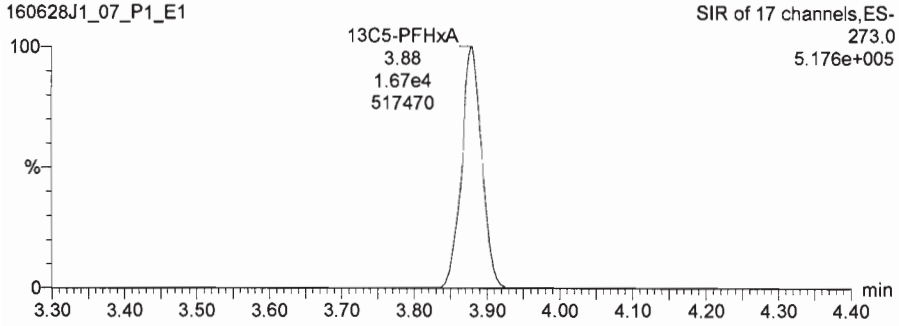


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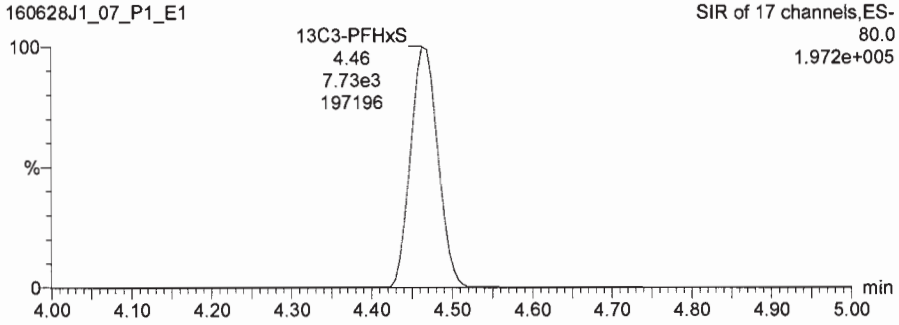
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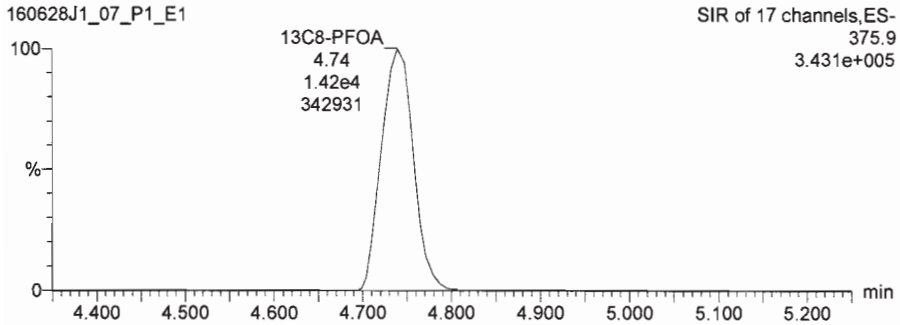
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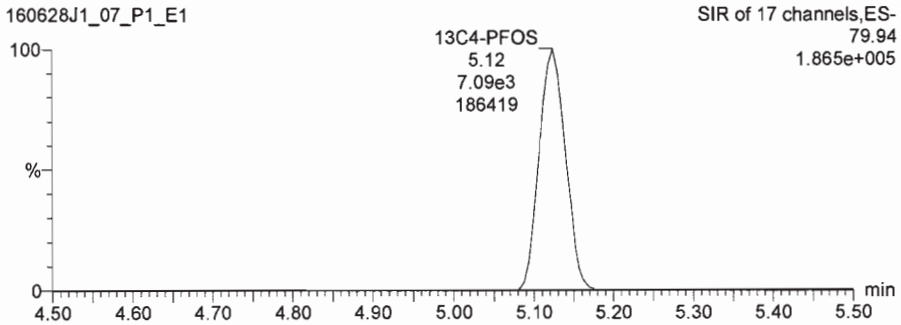
13C3-PFHxS



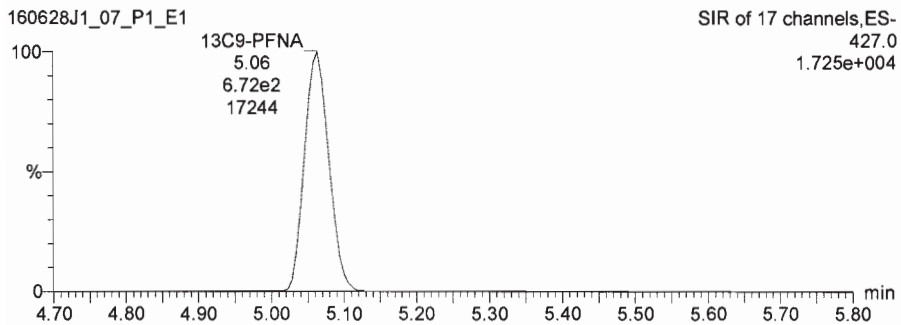
13C8-PFOA



13C4-PFOS



13C9-PFNA

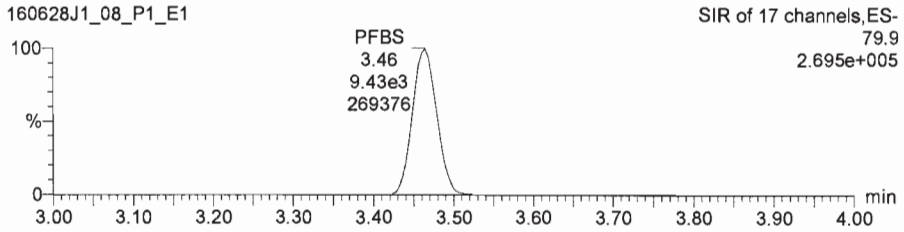


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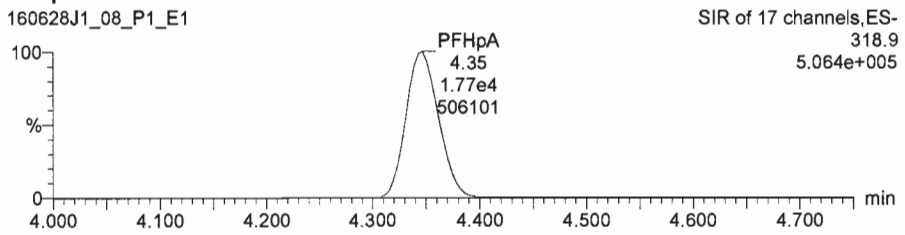
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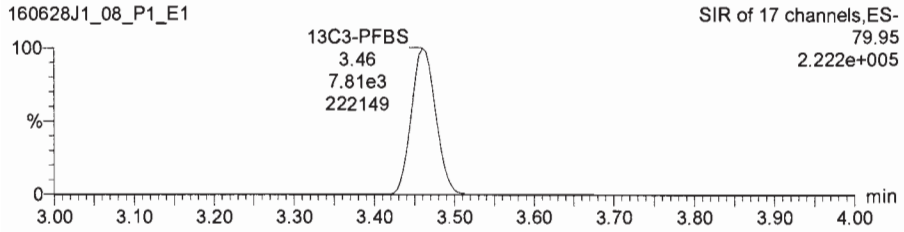
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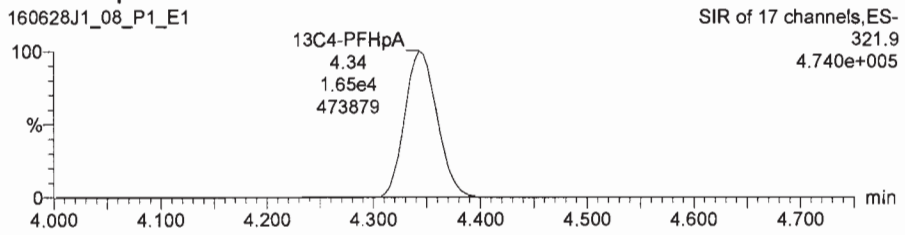
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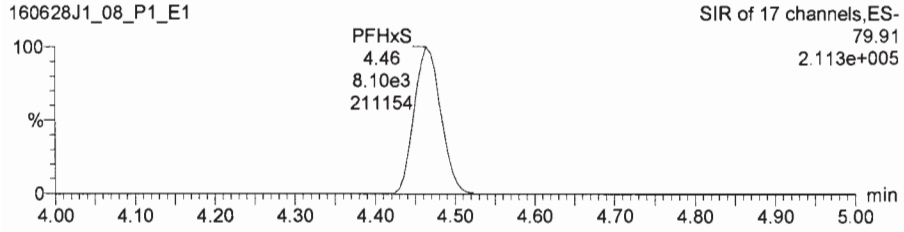
13C3-PFBS



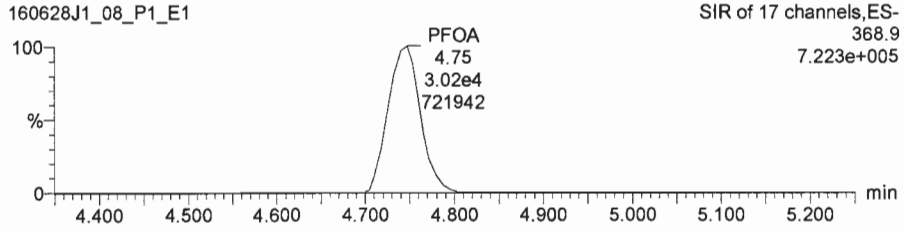
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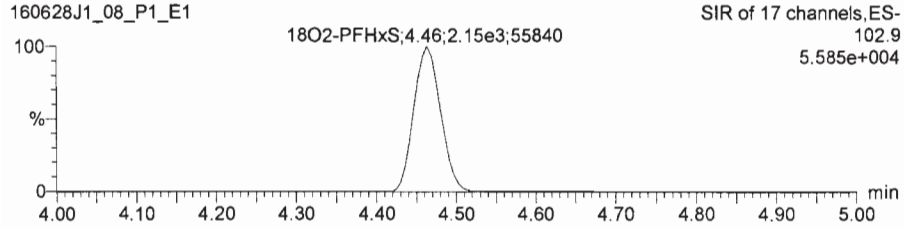
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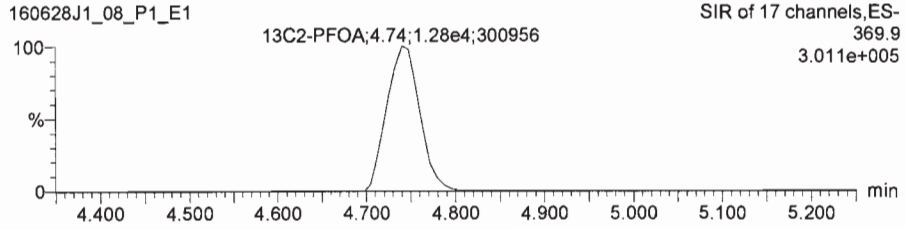
PFOA



18O2-PFHxS



13C2-PFOA

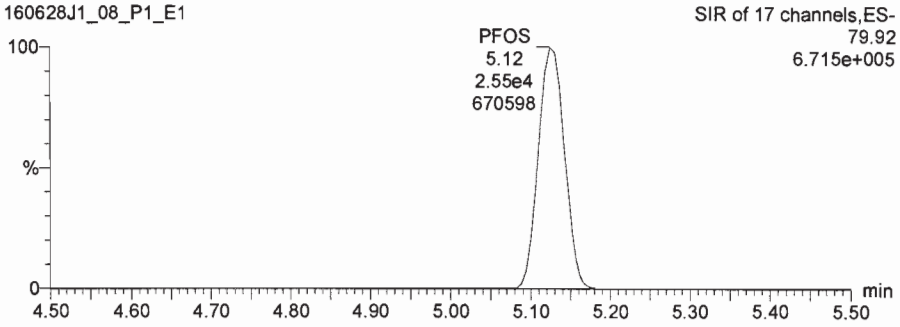


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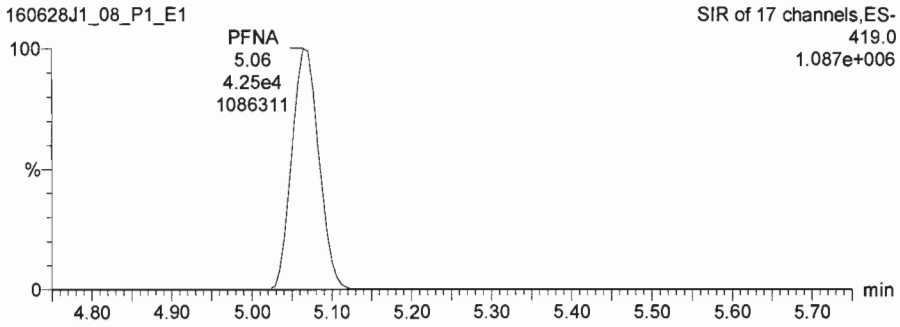
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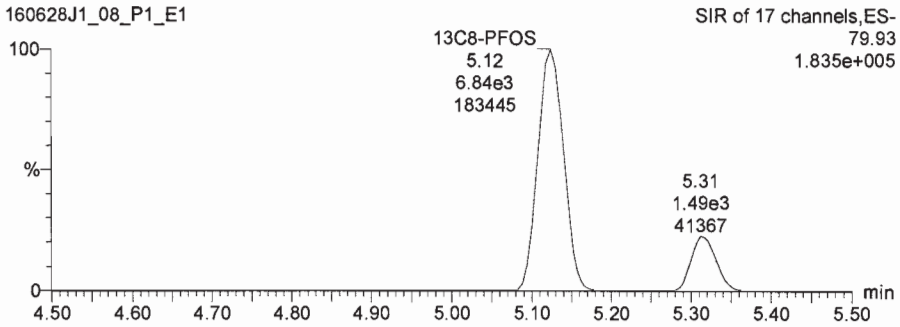
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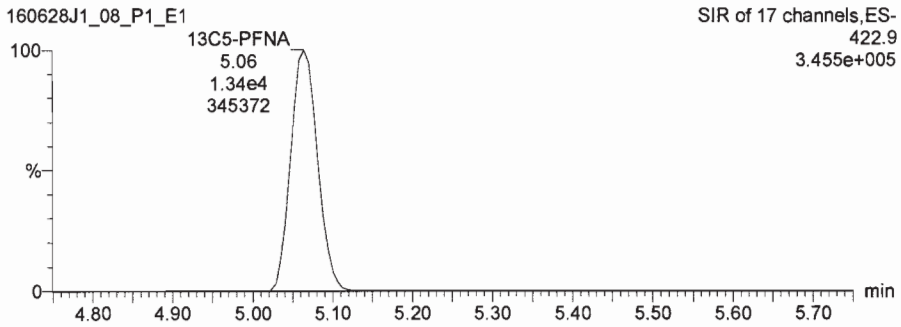
PFNA



13C8-PFOS



13C5-PFNA

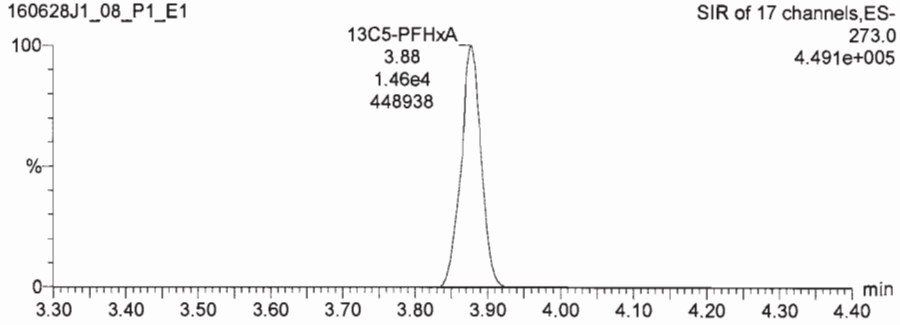


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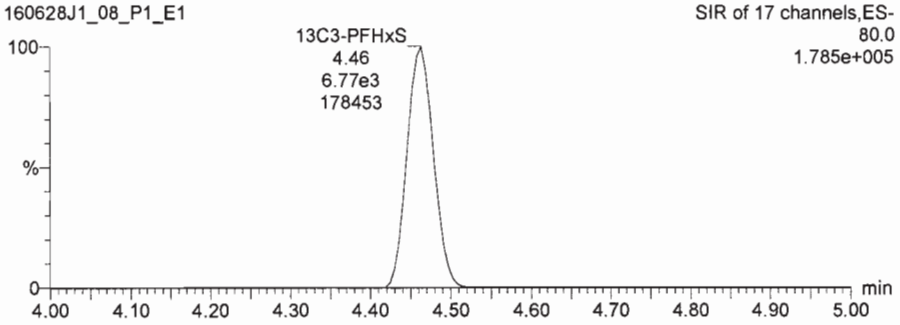
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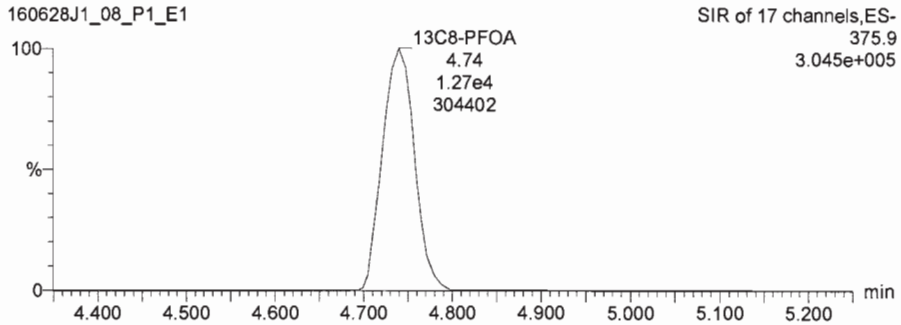
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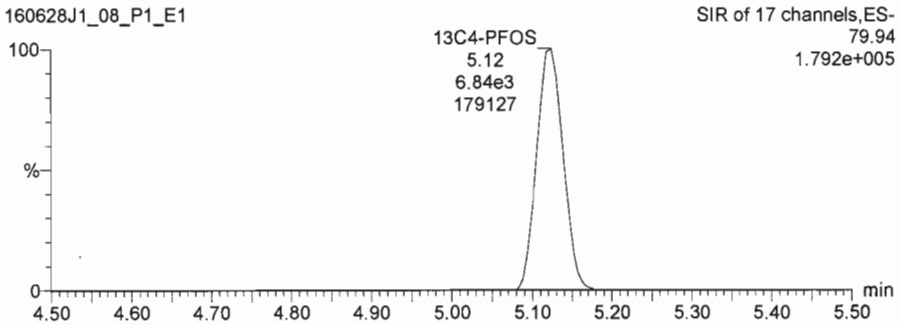
13C3-PFHxS



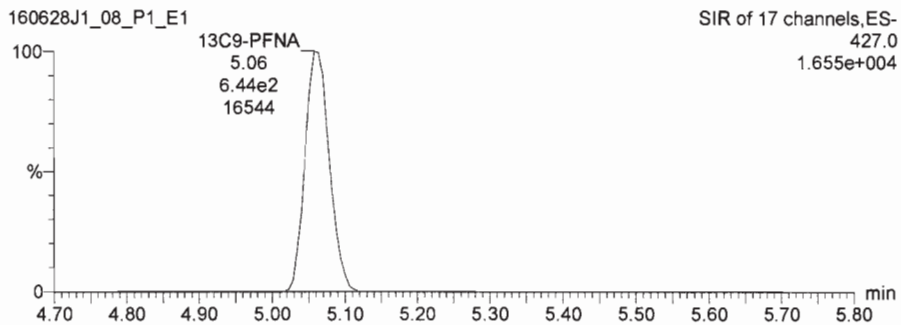
13C8-PFOA



13C4-PFOS



13C9-PFNA

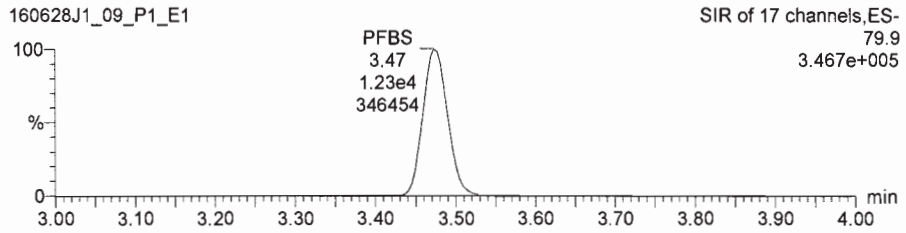


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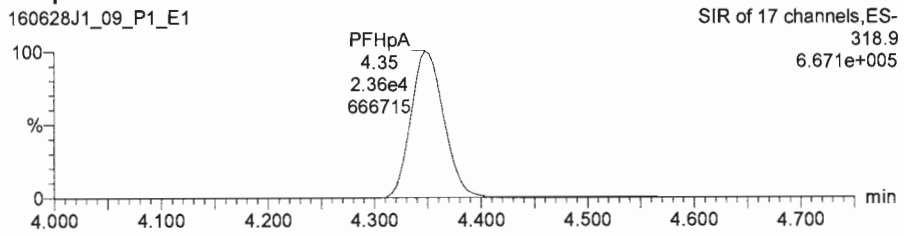
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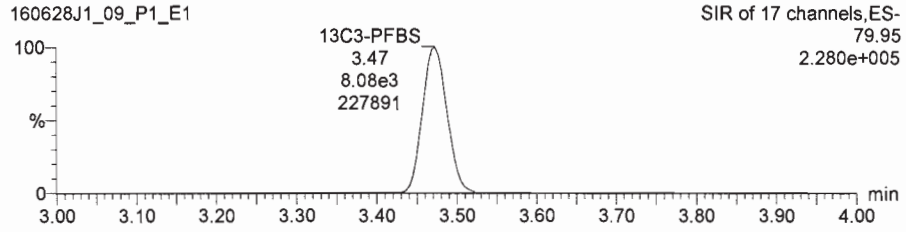
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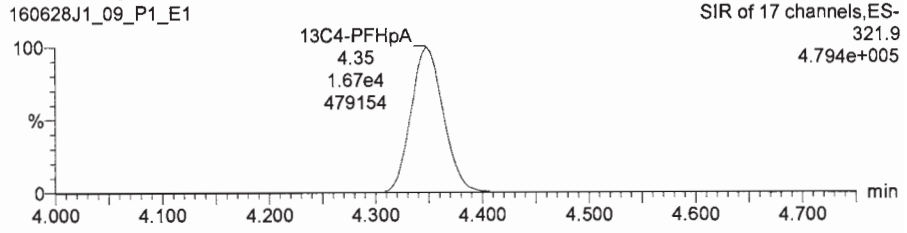
PFHpA



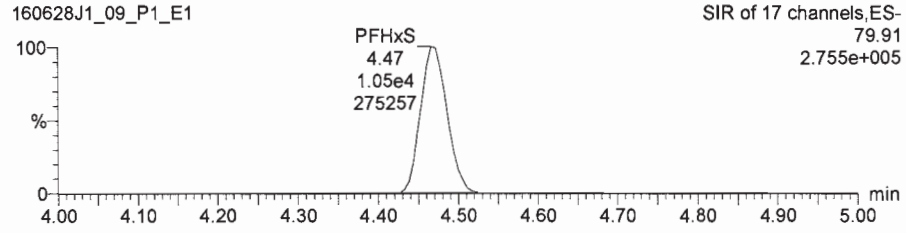
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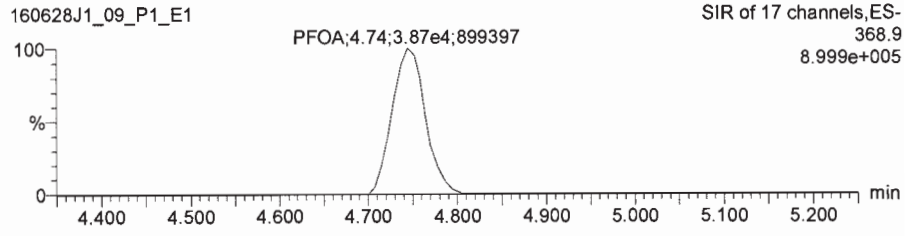
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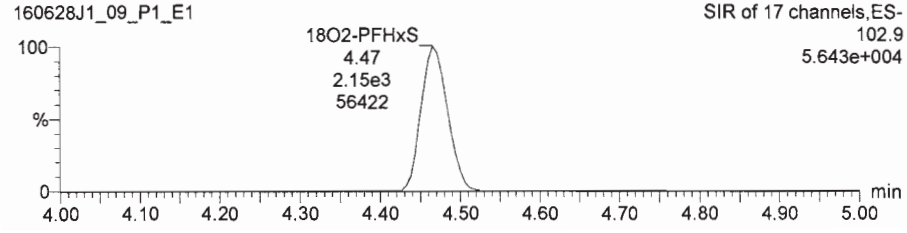
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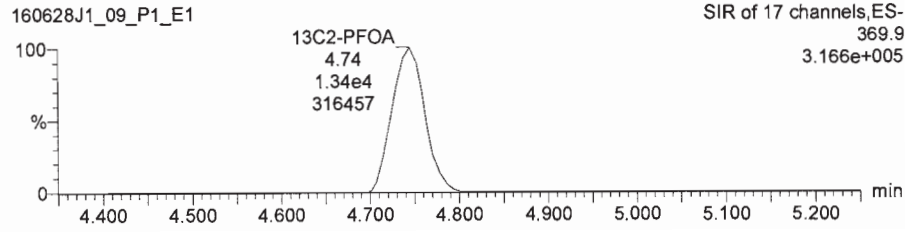
PFOA



18O2-PFHxS



13C2-PFOA

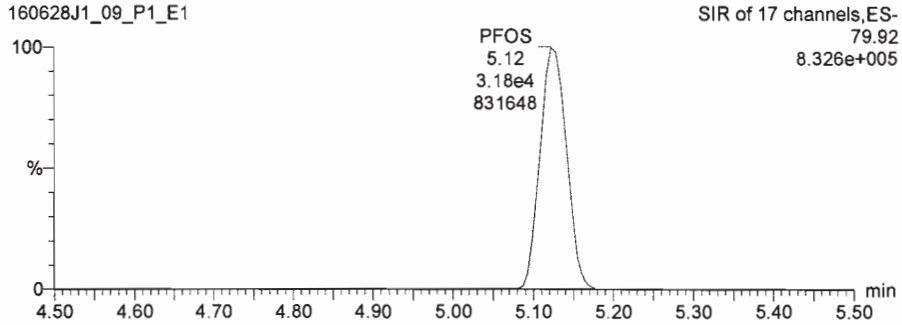


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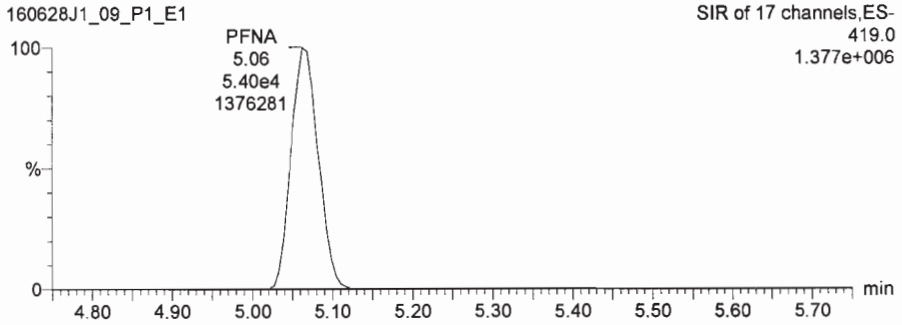
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Name: 160628J1_09.wiff, Date: 28-Jun-2016, Time: 17:34:27, ID: ST160628J1-8 PFC CS5 16F0708, Description: PFC CS5 16F0708

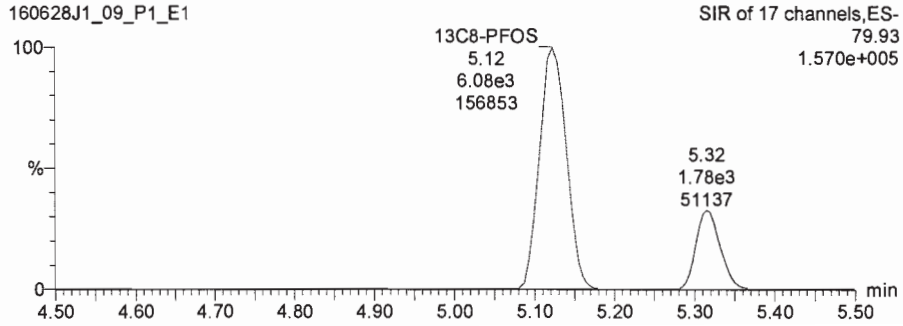
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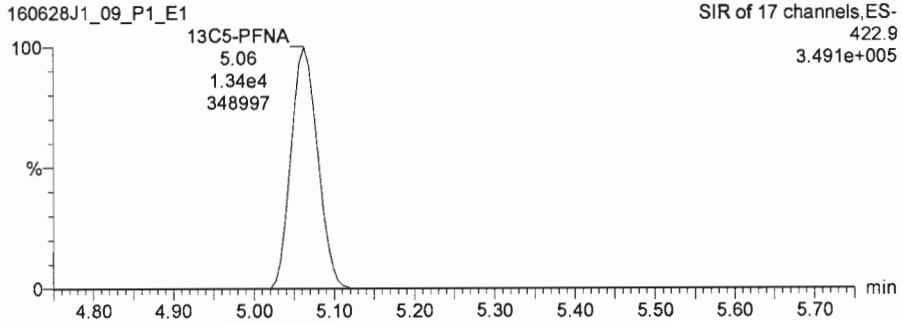
PFNA



13C8-PFOS



13C5-PFNA

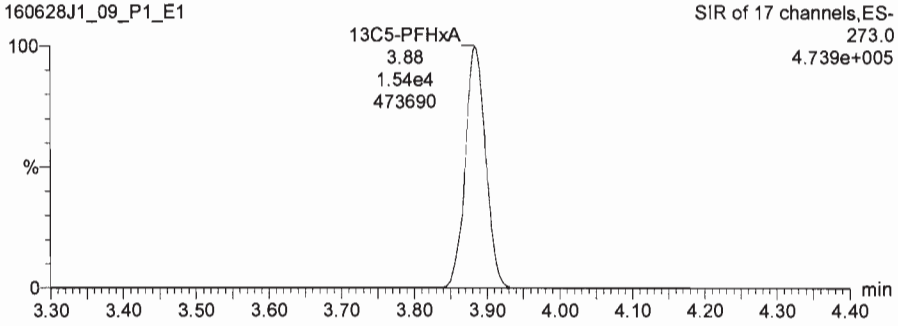


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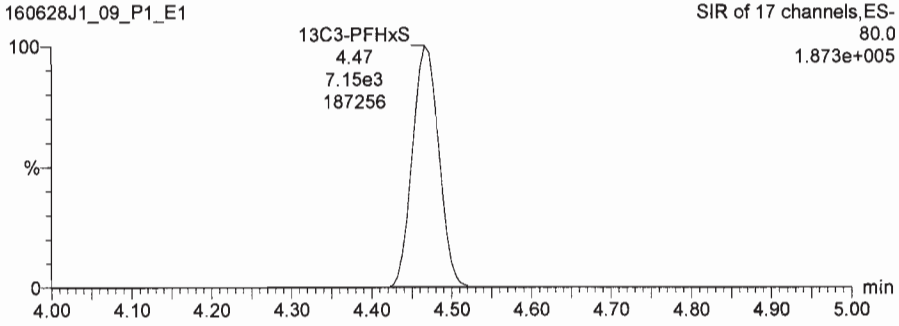
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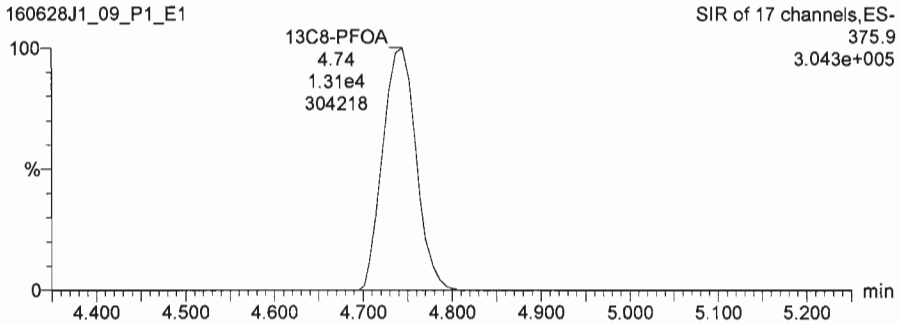
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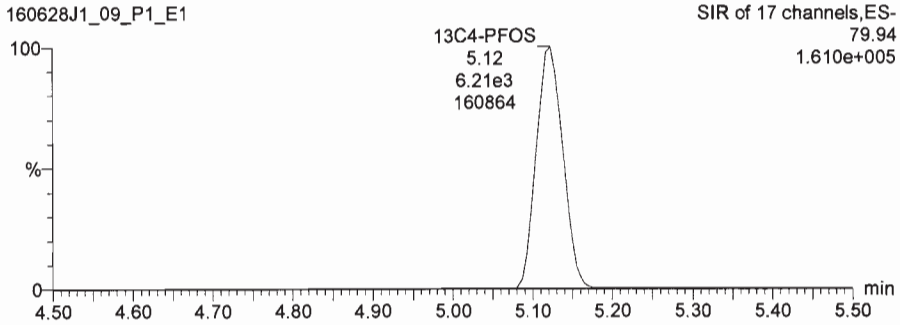
13C3-PFHxS



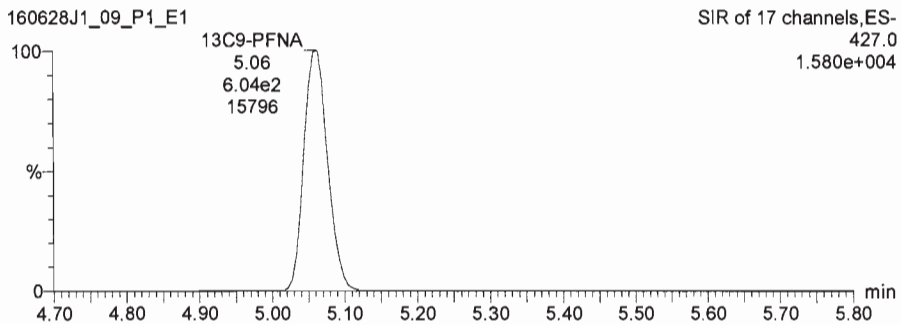
13C8-PFOA



13C4-PFOS



13C9-PFNA

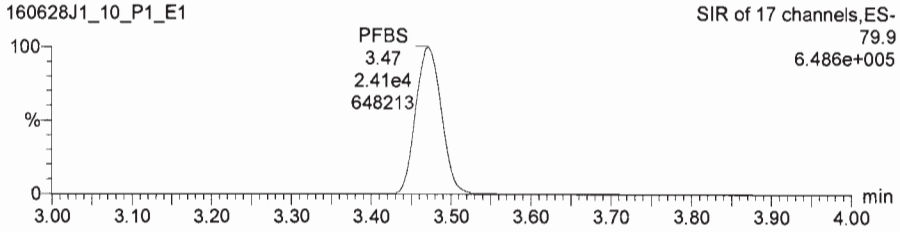


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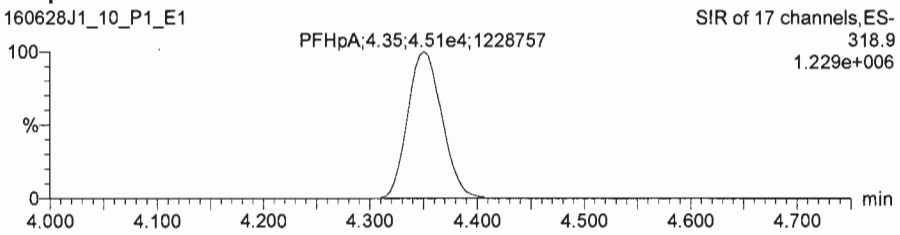
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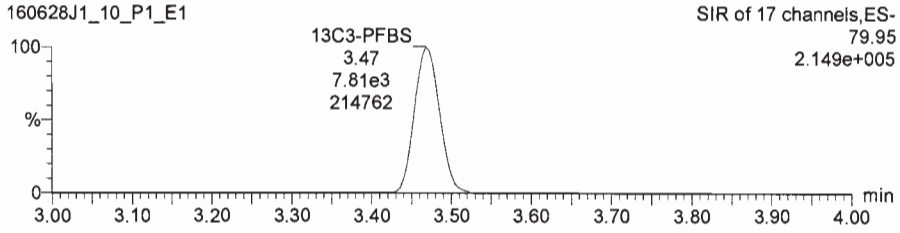
PFBS



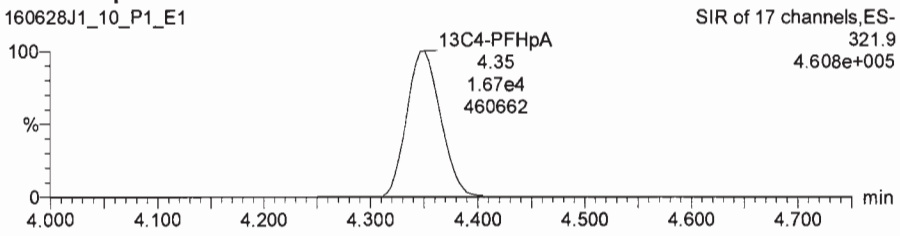
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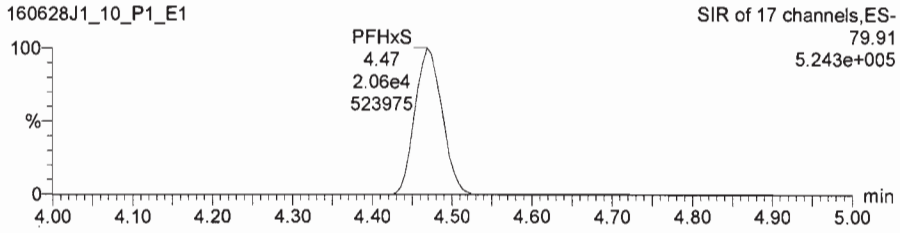
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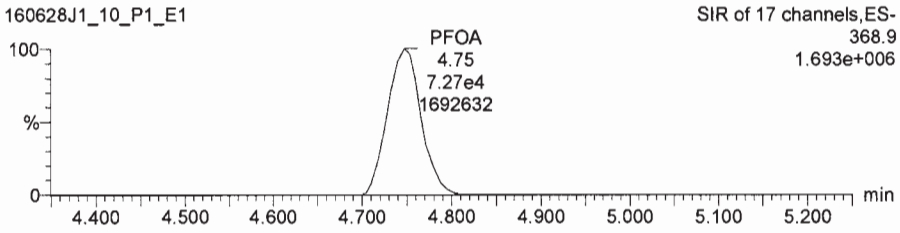
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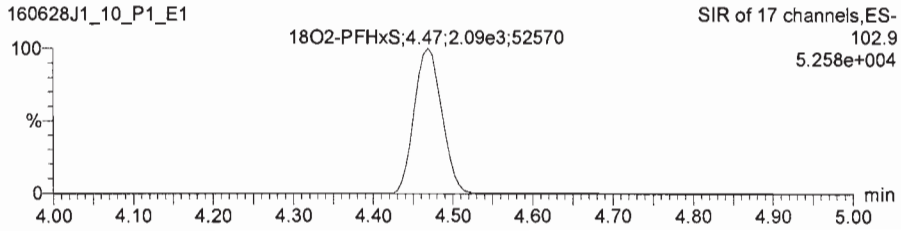
PFHxS



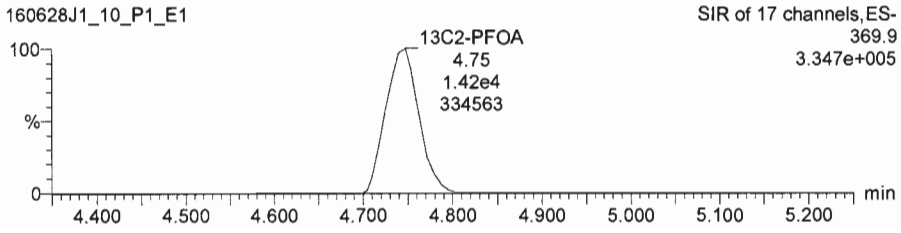
PFOA



18O2-PFHxS



13C2-PFOA

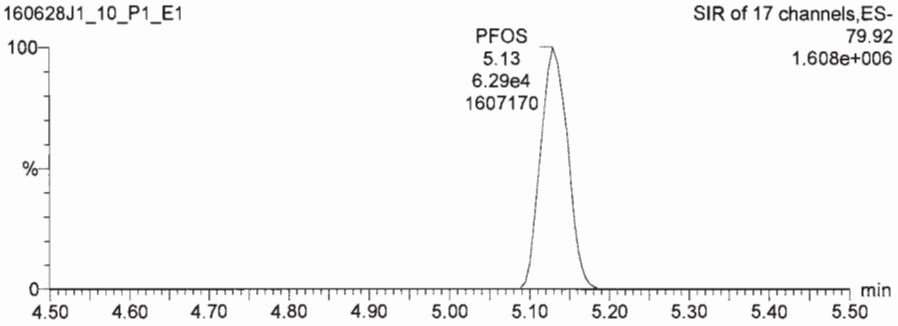


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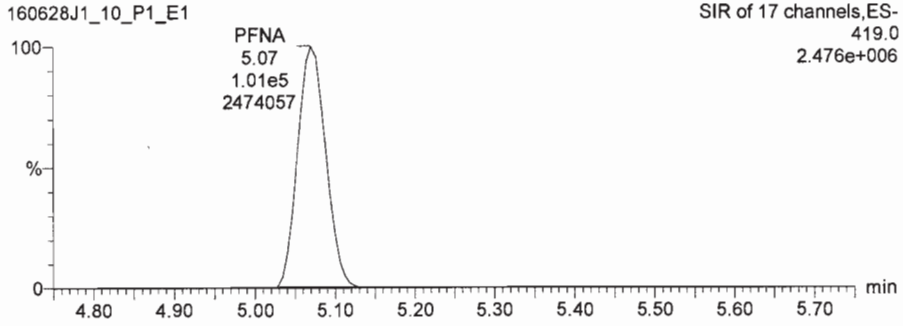
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Printed: Wednesday, June 29, 2016 11:56:13 Pacific Daylight Time

Name: 160628J1_10.wiff, Date: 28-Jun-2016, Time: 17:46:39, ID: ST160628J1-9 PFC CS6 16F0709, Description: PFC CS6 16F0709

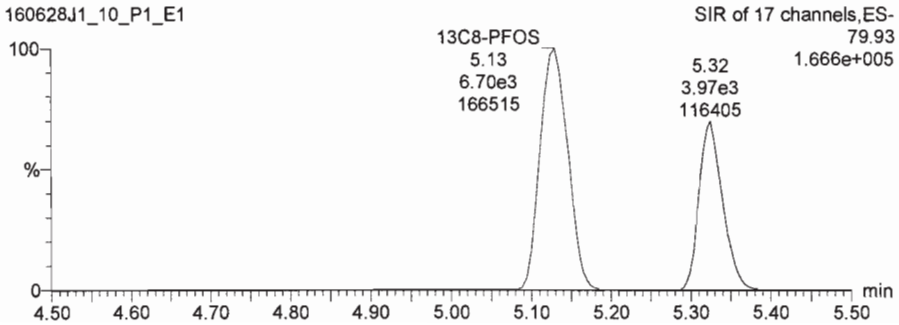
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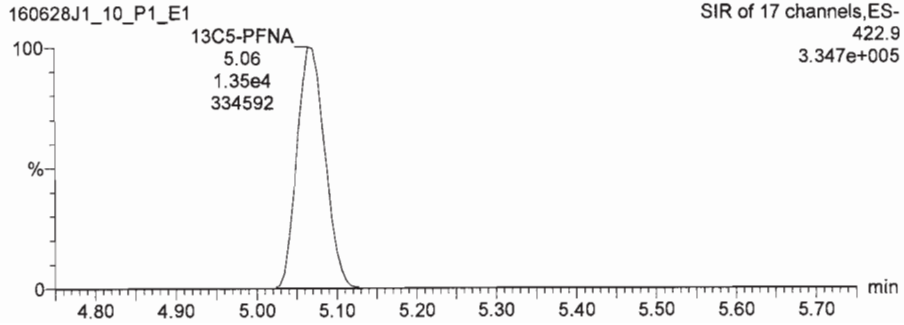
PFNA



13C8-PFOS



13C5-PFNA

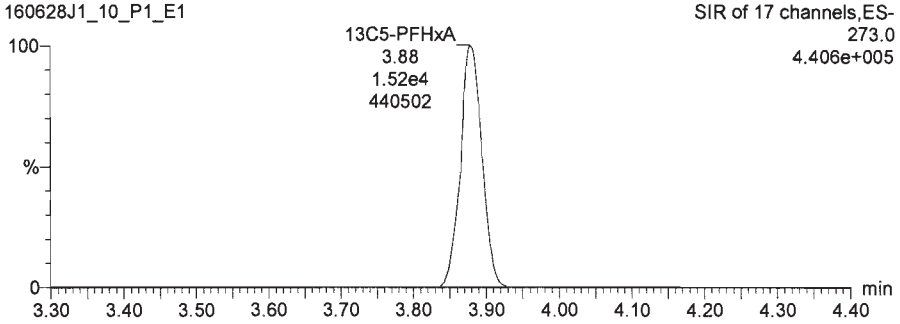


Dataset: U:\Q2.PRO\Results\160628J1\160628J1crv.qld

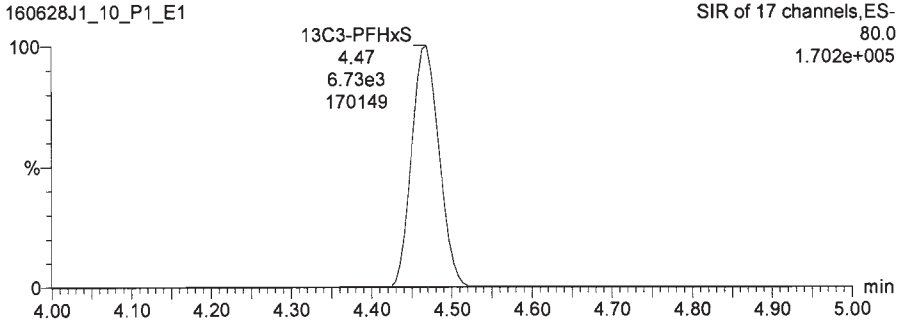
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Printed: Wednesday, June 29, 2016 11:56:13 Pacific Daylight Time

Name: 160628J1_10.wiff, Date: 28-Jun-2016, Time: 17:46:39, ID: ST160628J1-9 PFC CS6 16F0709, Description: PFC CS6 16F0709

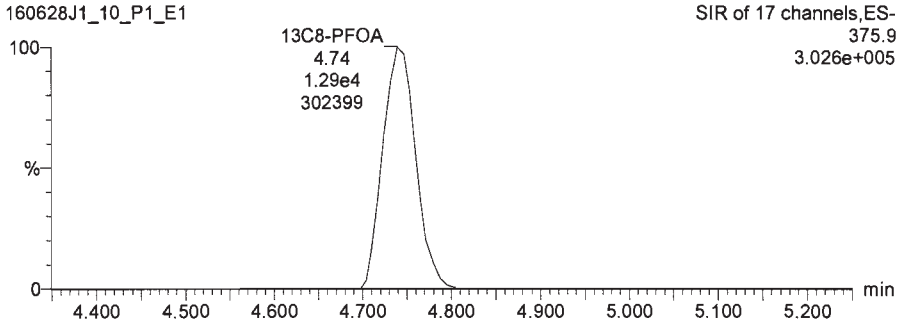
13C5-PFHxA



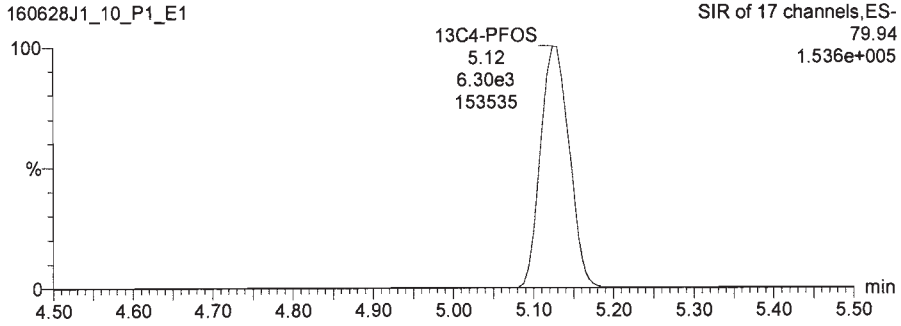
13C3-PFHxS



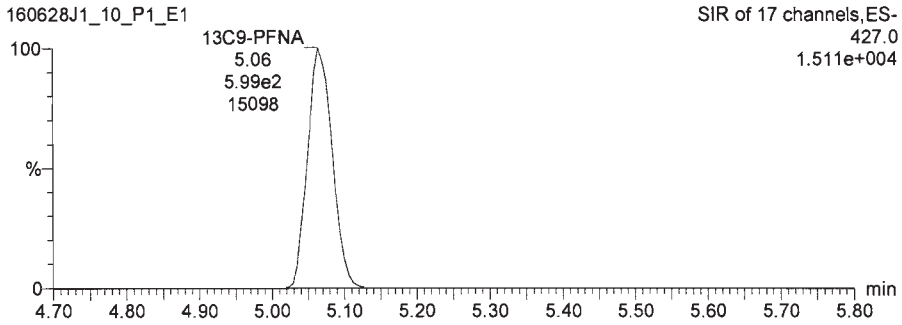
13C8-PFOA



13C4-PFOS



13C9-PFNA



Quantify Sample Summary Report **MassLynx 4.1 SCN815**
Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J_13.qld

Last Altered: Wednesday, June 29, 2016 12:35:29 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 12:36:25 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_13.wiff, Date: 28-Jun-2016, Time: 18:23:17, ID: SS160628J1-1 PFC SSS 16F0907, Description: PFC SSS 16F0907

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1	PFBS	79.9	3.62e3	8.73e3		1.000	3.46	25.8	103.0
2	2	PFHpA	318.9	7.70e3	1.75e4		1.000	4.35	29.8	119.4
3	3	PFHxS	79.91	2.58e3	2.29e3		1.000	4.47	22.1	88.2
4	4	PFOA	368.9	8.83e3	1.48e4		1.000	4.74	18.0	72.0
5	5	PFOS	79.92	6.16e3	7.43e3		1.000	5.13	15.3	61.2
6	6	PFNA	419.0	1.63e4	1.50e4		1.000	5.07	24.4	97.5
7	7	13C3-PFBS	79.95	8.73e3	1.45e4	0.546	1.000	3.46	13.8	110.0
8	8	13C4-PFHpA	321.9	1.75e4	1.45e4	1.075	1.000	4.34	14.0	112.1
9	9	18O2-PFHxS	102.9	2.29e3	6.83e3	0.307	1.000	4.47	13.6	108.9
10	10	13C2-PFOA	369.9	1.48e4	1.27e4	1.042	1.000	4.74	13.9	111.5
11	11	13C8-PFOS	79.93	7.43e3	6.74e3	1.026	1.000	5.13	13.4	107.5
12	12	13C5-PFNA	422.9	1.50e4	6.02e2	21.158	1.000	5.07	14.7	118.0
13	13	13C5-PFHxA	273.0	1.45e4	1.45e4	1.000	1.000	3.88	12.5	100.0
14	14	13C3-PFHxS	80.0	6.83e3	6.83e3	1.000	1.000	4.47	12.5	100.0
15	15	13C8-PFOA	375.9	1.27e4	1.27e4	1.000	1.000	4.74	12.5	100.0
16	16	13C4-PFOS	79.94	6.74e3	6.74e3	1.000	1.000	5.13	12.5	100.0
17	17	13C9-PFNA	427.0	6.02e2	6.02e2	1.000	1.000	5.06	12.5	100.0
18	18	Total PFBS	79.9		8.73e3		1.000		25.8	
19	19	Total PFHxS	79.91		2.29e3		1.000		26.3	
20	20	Total PFOA	368.9		1.48e4		1.000		21.2	
21	21	Total PFOS	79.92		7.43e3		1.000		25.7	

108.8 Ⓑ
91.1 Ⓐ
89.6 Ⓐ

Limits
75-125

PW
6/29/16

BR 6/29/16 ✓

Ⓐ % Rec Calc. as % of linear isomers in Branched/Technical mix.
PW 6/29/16

Vista Analytical Laboratory Q1

Dataset: U:\Q2.PRO\Results\160628J1\160628J_13.qld

Last Altered: Wednesday, June 29, 2016 12:35:29 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 12:36:25 Pacific Daylight Time

Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_13.wiff, Date: 28-Jun-2016, Time: 18:23:17, ID: SS160628J1-1 PFC SSS 16F0907, Description: PFC SSS 16F0907

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	79.9	3.46	3.62e3	8.73e3	25.8

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	3	PFHxS	79.91	4.47	2.58e3	2.29e3	22.1
2	19	Total PFHxS	79.91	4.37	4.85e2	2.29e3	4.13
3	19	Total PFHxS	79.91	4.26	9.77e0	2.29e3	0.0832

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	4	PFOA	368.9	4.74	8.83e3	1.48e4	18.0
2	20	Total PFOA	368.9	4.65	1.62e3	1.48e4	3.24

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	5	PFOS	79.92	5.13	6.16e3	7.43e3	15.3
2	21	Total PFOS	79.92	5.02	3.90e3	7.43e3	9.64
3	21	Total PFOS	79.92	4.93	2.93e2	7.43e3	0.720

Vista Analytical Laboratory Q2

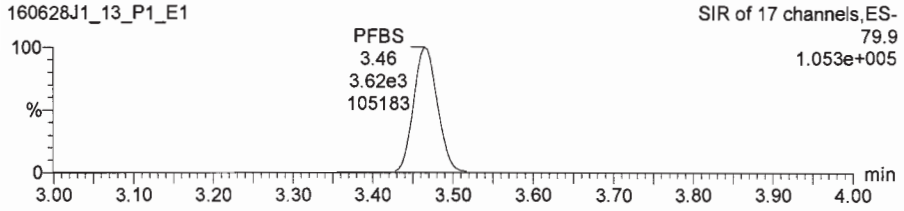
Dataset: U:\Q2.PRO\Results\160628J1\160628J_13.qld

Last Altered: Wednesday, June 29, 2016 12:35:29 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 12:36:44 Pacific Daylight Time

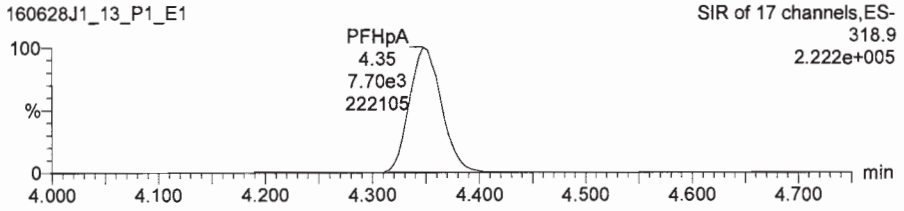
Method: U:\Q2.PRO\MethDB\PFC List 6.mdb 13 Jun 2016 10:04:50
Calibration: U:\Q2.PRO\CurveDB\C18_VAL-PFC_Q2_06-28-16_L6_A.cdb 29 Jun 2016 11:45:23

Name: 160628J1_13.wiff, Date: 28-Jun-2016, Time: 18:23:17, ID: SS160628J1-1 PFC SSS 16F0907, Description: PFC SSS 16F0907

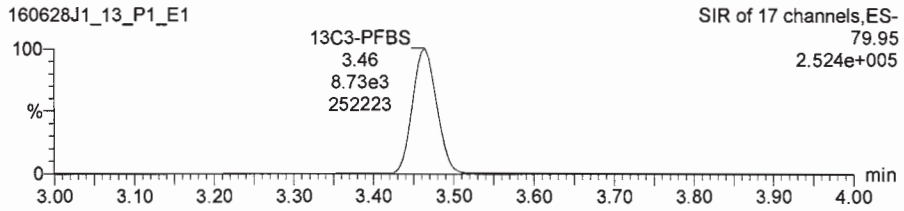
PFBS



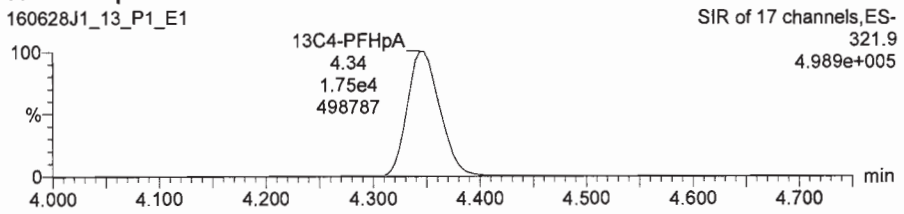
PFHpA



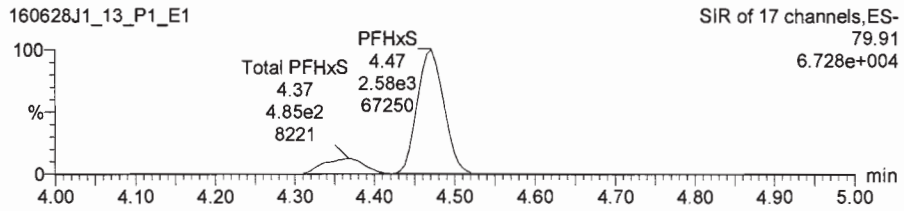
13C3-PFBS



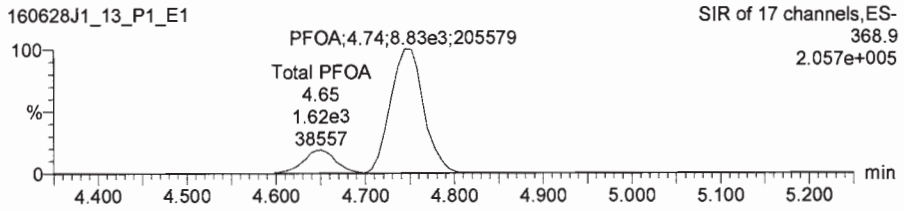
13C4-PFHpA



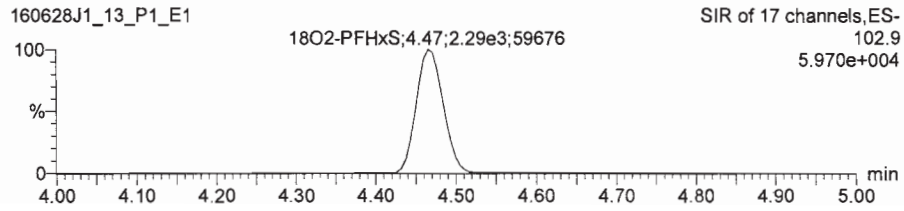
PFHxS



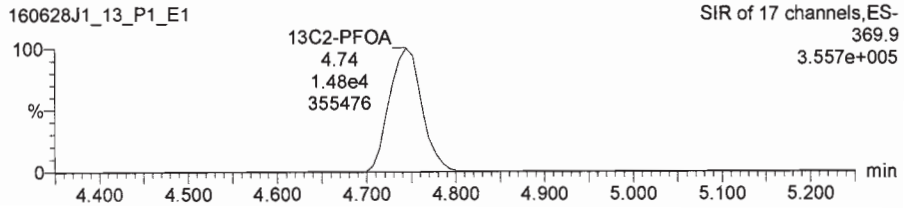
PFOA

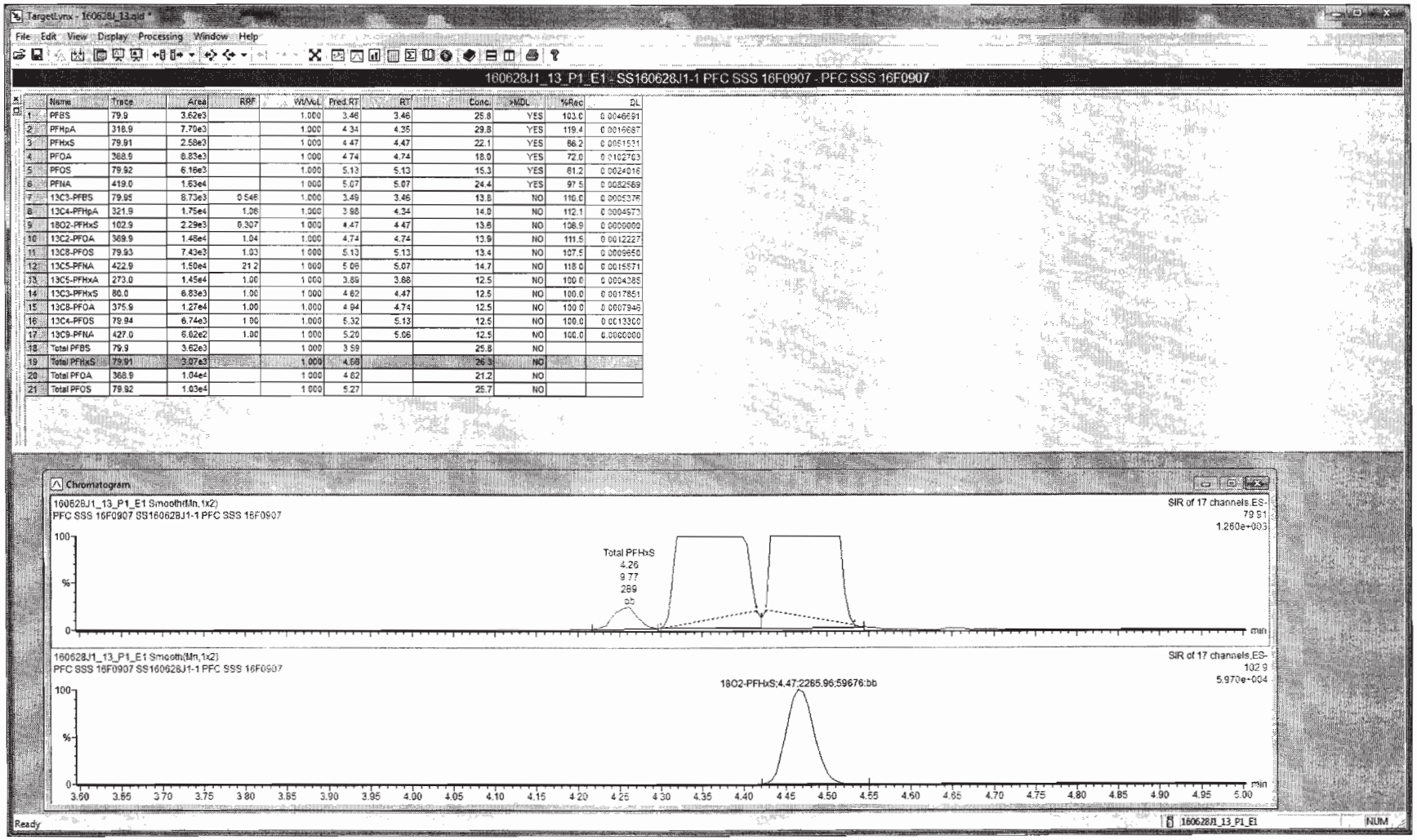


18O2-PFHxS



13C2-PFOA





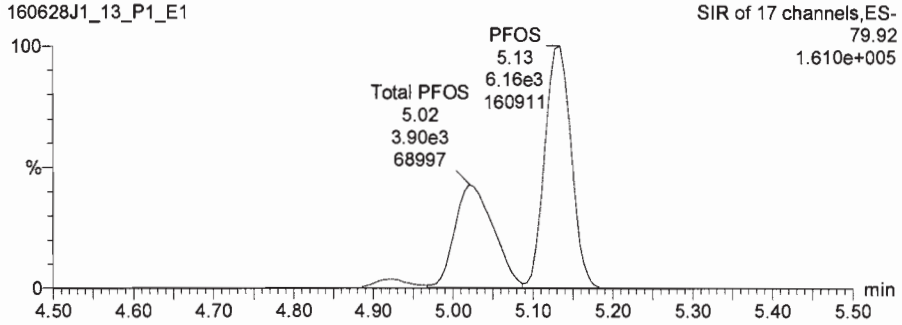
	Name	Trace	Area	RRF	Wt/Vol	Pred.RT	RT	Conc.	>MDL	%Rec	DL
1	PFBS	79.9	3.62e3		1.000	3.46	3.46	25.8	YES	103.0	0.0046691
2	PFHpA	318.9	7.70e3		1.000	4.34	4.35	29.8	YES	119.4	0.0016687
3	PFHxS	79.91	2.58e3		1.000	4.47	4.47	22.1	YES	88.2	0.0051531
4	PFOA	368.9	8.83e3		1.000	4.74	4.74	18.0	YES	72.0	0.0102703
5	PFOS	79.92	6.16e3		1.000	5.13	5.13	15.3	YES	61.2	0.0024016
6	PFNA	419.0	1.63e4		1.000	5.07	5.07	24.4	YES	97.5	0.0082569
7	13C3-PFBS	79.95	8.73e3	0.546	1.000	3.46	3.46	13.8	NO	110.0	0.0005376
8	13C4-PFHpA	321.9	1.75e4	1.06	1.000	3.98	4.34	14.0	NO	112.1	0.0004573
9	1802-PFHxS	102.9	2.29e3	0.307	1.000	4.47	4.47	13.6	NO	108.9	0.0000000
10	13C2-PFOA	369.9	1.48e4	1.04	1.000	4.74	4.74	13.9	NO	111.5	0.0012227
11	13C8-PFOS	79.93	7.43e3	1.03	1.000	5.13	5.13	13.4	NO	107.5	0.0009658
12	13C5-PFNA	422.9	1.50e4	21.2	1.000	5.06	5.07	14.7	NO	118.0	0.0015571
13	13C5-PFHxA	273.0	1.45e4	1.00	1.000	3.88	3.88	12.5	NO	100.0	0.0004385
14	13C3-PFHxS	80.0	8.83e3	1.00	1.000	4.62	4.47	12.5	NO	100.0	0.0017851
15	13C8-PFOA	375.9	1.27e4	1.00	1.000	4.94	4.74	12.5	NO	100.0	0.0007946
16	13C4-PFOS	79.94	6.74e3	1.00	1.000	5.32	5.13	12.5	NO	100.0	0.0013300
17	13C9-PFNA	427.0	8.62e2	1.00	1.000	5.20	5.06	12.5	NO	100.0	0.0000000
18	Total PFBS	79.9	3.62e3		1.000	3.59		25.8	NO		
19	Total PFHxS	79.91	3.07e3		1.000	4.66		26.3	NO		
20	Total PFOA	368.9	1.04e4		1.000	4.82		21.2	NO		
21	Total PFOS	79.92	1.03e4		1.000	5.27		25.7	NO		

Dataset: U:\Q2.PRO\Results\160628J1\160628J_13.qld

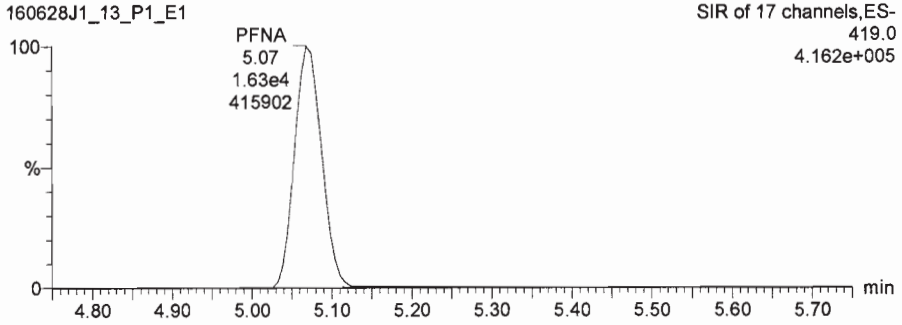
Last Altered: Wednesday, June 29, 2016 12:35:29 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 12:36:44 Pacific Daylight Time

Name: 160628J1_13.wiff, Date: 28-Jun-2016, Time: 18:23:17, ID: SS160628J1-1 PFC SSS 16F0907, Description: PFC SSS 16F0907

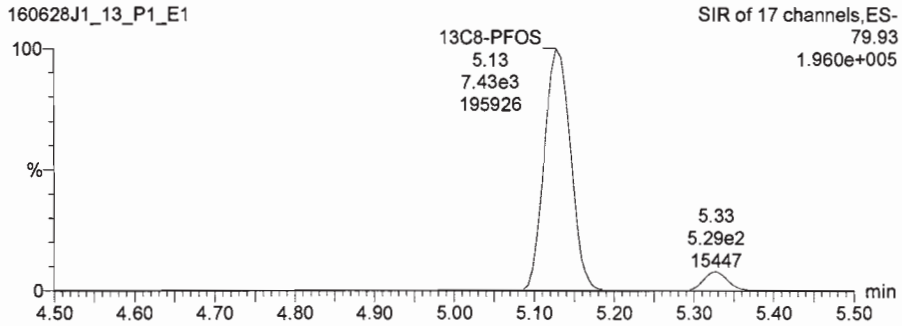
PFOS



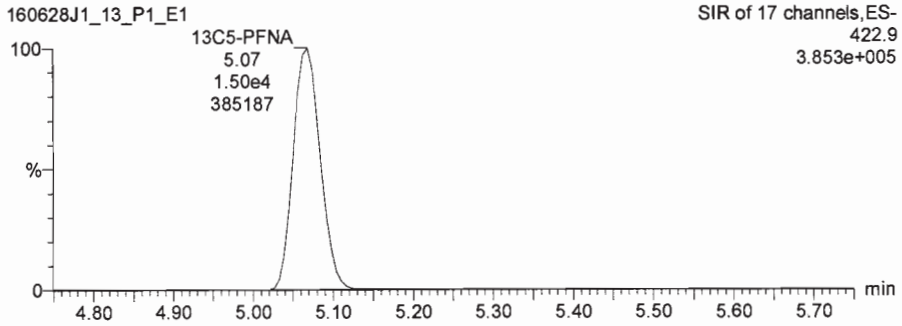
PFNA



13C8-PFOS



13C5-PFNA

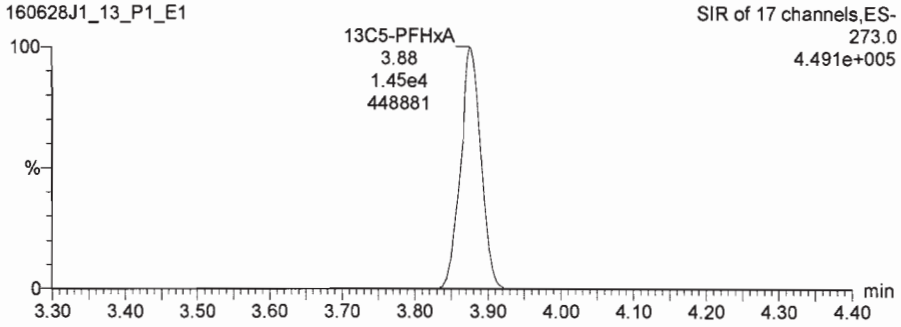


Dataset: U:\Q2.PRO\Results\160628J1\160628J_13.qld

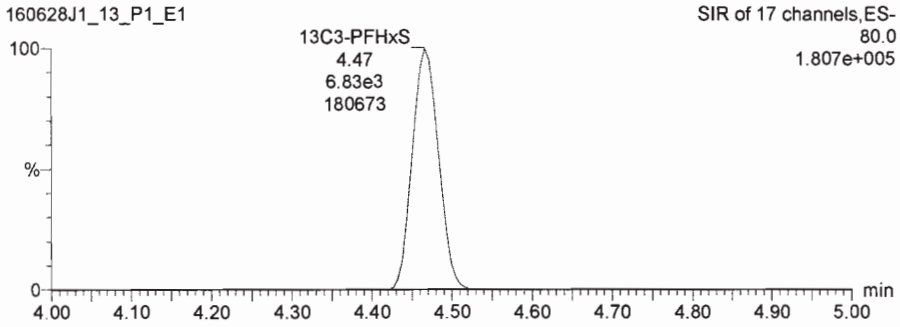
Last Altered: Wednesday, June 29, 2016 12:35:29 Pacific Daylight Time
Printed: Wednesday, June 29, 2016 12:36:44 Pacific Daylight Time

Name: 160628J1_13.wiff, Date: 28-Jun-2016, Time: 18:23:17, ID: SS160628J1-1 PFC SSS 16F0907, Description: PFC SSS 16F0907

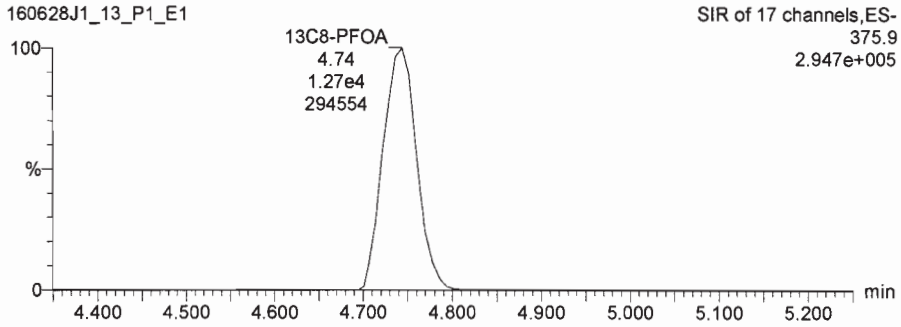
13C5-PFHxA



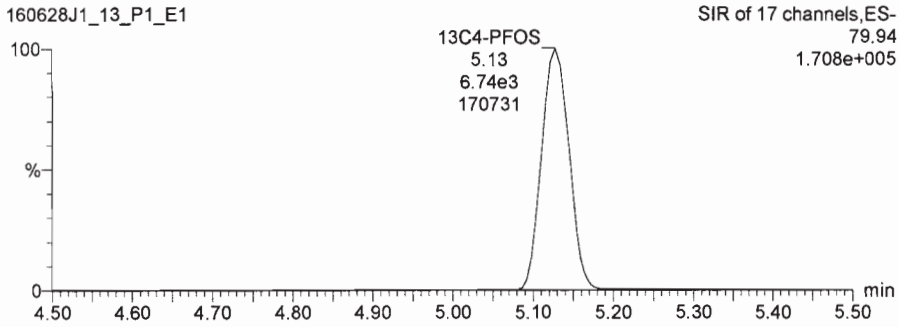
13C3-PFHxS



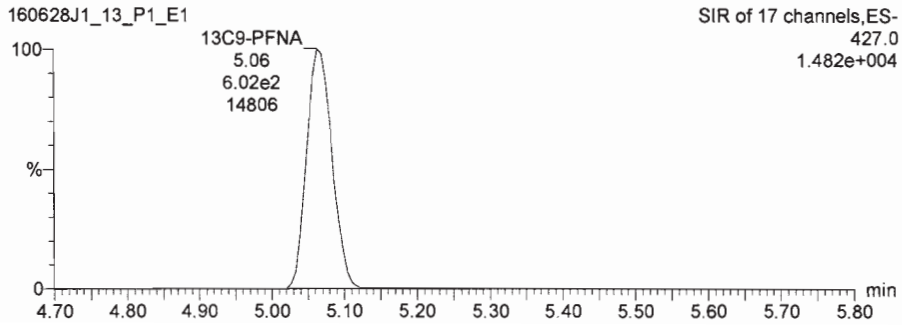
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:30:13 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999561
Calibration curve: 0.00113161 * x^2 + 1.51457 * x
Response type: Internal Std (Ref 7), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	3.10	9.34e2	7.06e3	1.09	0.9996
2	2 160629G3_3	2.00	3.09	2.06e3	7.11e3	2.39	0.9996
3	3 160629G3_4	5.00	3.09	4.32e3	6.48e3	5.49	0.9996
4	4 160629G3_5	10.0	3.08	8.35e3	6.48e3	10.6	0.9996
5	5 160629G3_6	25.0	3.08	2.14e4	6.88e3	25.2	0.9996
6	6 160629G3_7	50.0	3.08	3.48e4	5.54e3	50.0	0.9996
7	7 160629G3_8	75.0	3.08	5.03e4	5.33e3	73.8	0.9996
8	8 160629G3_9	100	3.08	6.33e4	4.94e3	98.5	0.9996
9	9 160629G3_10	200	3.08	1.07e5	3.82e3	201	0.9996

Ⓐ 160629G3.10 name is ST160629G3_9, not ST160629G7.3

BR 6/30/16

PH 6/30/16

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999393
Calibration curve: -2.74459e-005 * x^2 + 1.35406 * x
Response type: Internal Std (Ref 8), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	3.97	2.32e3	2.10e4	1.02	0.9994
2	2 160629G3_3	2.00	3.96	4.96e3	2.11e4	2.17	0.9994
3	3 160629G3_4	5.00	3.96	1.10e4	1.97e4	5.13	0.9994
4	4 160629G3_5	10.0	3.95	2.17e4	2.04e4	9.79	0.9994
5	5 160629G3_6	25.0	3.95	5.57e4	2.07e4	24.9	0.9994
6	6 160629G3_7	50.0	3.95	9.87e4	1.86e4	48.9	0.9994
7	7 160629G3_8	75.0	3.95	1.35e5	1.59e4	78.3	0.9994
8	8 160629G3_9	100	3.95	1.58e5	1.50e4	97.5	0.9994
9	9 160629G3_10	200	3.95	2.69e5	1.24e4	200	0.9994

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:30:13 Pacific Daylight Time

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998466
Calibration curve: 0.000751651 * x^2 + 1.4336 * x
Response type: Internal Std (Ref 9), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	4.09	9.31e2	6.43e3	1.26	0.9985
2	2 160629G3_3	2.00	4.08	1.60e3	5.83e3	2.39	0.9985
3	3 160629G3_4	5.00	4.07	3.97e3	5.78e3	5.98	0.9985
4	4 160629G3_5	10.0	4.07	7.38e3	6.07e3	10.5	0.9985
5	5 160629G3_6	25.0	4.07	1.83e4	6.28e3	25.1	0.9985
6	6 160629G3_7	50.0	4.07	3.07e4	5.13e3	50.8	0.9985
7	7 160629G3_8	75.0	4.07	4.31e4	5.16e3	70.3	0.9985
8	8 160629G3_9	100	4.07	5.78e4	4.76e3	101	0.9985
9	9 160629G3_10	200	4.07	1.01e5	3.98e3	201	0.9985

Compound name: PFOA
Coefficient of Determination: R^2 = 0.999485
Calibration curve: -3.10648e-005 * x^2 + 0.805611 * x
Response type: Internal Std (Ref 10), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	4.39	1.93e3	2.63e4	1.14	0.9995
2	2 160629G3_3	2.00	4.39	3.94e3	2.82e4	2.17	0.9995
3	3 160629G3_4	5.00	4.38	9.13e3	2.62e4	5.41	0.9995
4	4 160629G3_5	10.0	4.37	1.86e4	2.86e4	10.1	0.9995
5	5 160629G3_6	25.0	4.37	4.37e4	2.82e4	24.0	0.9995
6	6 160629G3_7	50.0	4.37	7.87e4	2.36e4	51.9	0.9995
7	7 160629G3_8	75.0	4.37	1.12e5	2.35e4	74.1	0.9995
8	8 160629G3_9	100	4.37	1.48e5	2.35e4	98.4	0.9995
9	9 160629G3_10	200	4.37	2.49e5	1.94e4	201	0.9995

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

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Compound name: PFOS
Coefficient of Determination: R^2 = 0.997347
Calibration curve: -0.0003298 * x^2 + 0.635145 * x
Response type: Internal Std (Ref 11), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	4.81	4.18e2	7.44e3	1.11	0.9973
2	2 160629G3_3	2.00	4.81	8.02e2	7.67e3	2.06	0.9973
3	3 160629G3_4	5.00	4.80	1.82e3	7.36e3	4.87	0.9973
4	4 160629G3_5	10.0	4.80	3.64e3	7.58e3	9.51	0.9973
5	5 160629G3_6	25.0	4.80	8.28e3	6.89e3	24.0	0.9973
6	6 160629G3_7	50.0	4.80	1.63e4	6.62e3	49.6	0.9973
7	7 160629G3_8	75.0	4.80	2.30e4	6.65e3	70.7	0.9973
8	8 160629G3_9	100	4.80	3.25e4	6.22e3	109	0.9973
9	9 160629G3_10	200	4.80	5.57e4	6.20e3	197	0.9973

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999547
Calibration curve: -0.000229118 * x^2 + 1.36715 * x
Response type: Internal Std (Ref 12), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	Coeff. Of D...
1	1 160629G3_2	1.00	4.76	1.49e3	1.13e4	1.21	0.9995
2	2 160629G3_3	2.00	4.75	2.89e3	1.16e4	2.28	0.9995
3	3 160629G3_4	5.00	4.74	6.70e3	1.16e4	5.27	0.9995
4	4 160629G3_5	10.0	4.74	1.29e4	1.21e4	9.77	0.9995
5	5 160629G3_6	25.0	4.73	2.97e4	1.10e4	24.8	0.9995
6	6 160629G3_7	50.0	4.74	5.59e4	1.07e4	48.3	0.9995
7	7 160629G3_8	75.0	4.74	8.24e4	1.01e4	75.4	0.9995
8	8 160629G3_9	100	4.74	1.13e5	1.04e4	101	0.9995
9	9 160629G3_10	200	4.74	1.90e5	9.02e3	200	0.9995

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
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Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Compound name: 13C3-PFBS
Response Factor: 0.241163
RRF SD: 0.0113178, Relative SD: 4.69301
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	3.10	7.06e3	2.86e4	12.8	0.247
2	2 160629G3_3	12.5	3.09	7.11e3	2.70e4	13.7	0.263
3	3 160629G3_4	12.5	3.09	6.48e3	2.75e4	12.2	0.235
4	4 160629G3_5	12.5	3.08	6.48e3	2.64e4	12.7	0.246
5	5 160629G3_6	12.5	3.08	6.88e3	2.83e4	12.6	0.243
6	6 160629G3_7	12.5	3.08	5.54e3	2.39e4	12.0	0.232
7	7 160629G3_8	12.5	3.08	5.33e3	2.20e4	12.6	0.243
8	8 160629G3_9	12.5	3.08	4.94e3	2.07e4	12.4	0.238
9	9 160629G3_10	12.5	3.08	3.82e3	1.71e4	11.5	0.223

Compound name: 13C4-PFHpA
Response Factor: 0.744125
RRF SD: 0.0267992, Relative SD: 3.60144
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	3.97	2.10e4	2.86e4	12.3	0.734
2	2 160629G3_3	12.5	3.96	2.11e4	2.70e4	13.2	0.783
3	3 160629G3_4	12.5	3.96	1.97e4	2.75e4	12.1	0.718
4	4 160629G3_5	12.5	3.95	2.04e4	2.64e4	13.0	0.775
5	5 160629G3_6	12.5	3.94	2.07e4	2.83e4	12.3	0.731
6	6 160629G3_7	12.5	3.95	1.86e4	2.39e4	13.1	0.780
7	7 160629G3_8	12.5	3.95	1.59e4	2.20e4	12.2	0.725
8	8 160629G3_9	12.5	3.95	1.50e4	2.07e4	12.2	0.726
9	9 160629G3_10	12.5	3.95	1.24e4	1.71e4	12.2	0.726

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
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Compound name: 18O2-PFHxS
Response Factor: 0.572333
RRF SD: 0.0321379, Relative SD: 5.61523
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.08	6.43e3	1.06e4	13.2	0.604
2	2 160629G3_3	12.5	4.07	5.83e3	1.04e4	12.2	0.559
3	3 160629G3_4	12.5	4.07	5.78e3	1.12e4	11.3	0.516
4	4 160629G3_5	12.5	4.07	6.07e3	1.03e4	12.9	0.592
5	5 160629G3_6	12.5	4.06	6.28e3	1.07e4	12.8	0.586
6	6 160629G3_7	12.5	4.07	5.13e3	9.81e3	11.4	0.524
7	7 160629G3_8	12.5	4.07	5.16e3	8.67e3	13.0	0.595
8	8 160629G3_9	12.5	4.07	4.76e3	8.11e3	12.8	0.587
9	9 160629G3_10	12.5	4.07	3.98e3	6.76e3	12.9	0.588

Compound name: 13C2-PFOA
Response Factor: 2.2304
RRF SD: 0.171245, Relative SD: 7.67777
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.39	2.63e4	1.19e4	12.3	2.20
2	2 160629G3_3	12.5	4.39	2.82e4	1.07e4	14.8	2.64
3	3 160629G3_4	12.5	4.38	2.62e4	1.30e4	11.3	2.01
4	4 160629G3_5	12.5	4.37	2.86e4	1.25e4	12.8	2.29
5	5 160629G3_6	12.5	4.36	2.82e4	1.27e4	12.4	2.22
6	6 160629G3_7	12.5	4.37	2.36e4	1.09e4	12.1	2.16
7	7 160629G3_8	12.5	4.37	2.35e4	1.10e4	12.0	2.14
8	8 160629G3_9	12.5	4.37	2.35e4	1.08e4	12.2	2.18
9	9 160629G3_10	12.5	4.37	1.94e4	8.66e3	12.5	2.24

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

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Compound name: 13C8-PFOS
Response Factor: 1.10803
RRF SD: 0.0583389, Relative SD: 5.26512
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.81	7.44e3	6.76e3	12.4	1.10
2	2 160629G3_3	12.5	4.81	7.67e3	7.21e3	12.0	1.06
3	3 160629G3_4	12.5	4.80	7.36e3	6.58e3	12.6	1.12
4	4 160629G3_5	12.5	4.79	7.58e3	6.48e3	13.2	1.17
5	5 160629G3_6	12.5	4.79	6.89e3	6.24e3	12.4	1.10
6	6 160629G3_7	12.5	4.79	6.62e3	6.55e3	11.4	1.01
7	7 160629G3_8	12.5	4.80	6.65e3	6.11e3	12.3	1.09
8	8 160629G3_9	12.5	4.80	6.22e3	5.63e3	12.5	1.11
9	9 160629G3_10	12.5	4.79	6.20e3	5.10e3	13.7	1.21

Compound name: 13C5-PFNA
Response Factor: 1.01426
RRF SD: 0.042795, Relative SD: 4.21932
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.75	1.13e4	1.08e4	12.8	1.04
2	2 160629G3_3	12.5	4.75	1.16e4	1.11e4	12.9	1.04
3	3 160629G3_4	12.5	4.74	1.16e4	1.09e4	13.1	1.07
4	4 160629G3_5	12.5	4.73	1.21e4	1.23e4	12.1	0.985
5	5 160629G3_6	12.5	4.73	1.10e4	1.11e4	12.2	0.992
6	6 160629G3_7	12.5	4.74	1.07e4	1.03e4	12.8	1.04
7	7 160629G3_8	12.5	4.74	1.01e4	1.10e4	11.4	0.924
8	8 160629G3_9	12.5	4.74	1.04e4	1.02e4	12.5	1.01
9	9 160629G3_10	12.5	4.74	9.02e3	8.78e3	12.7	1.03

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:30:26 Pacific Daylight Time

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 13), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	3.45	2.86e4	2.86e4	12.5	1.00
2	2 160629G3_3	12.5	3.44	2.70e4	2.70e4	12.5	1.00
3	3 160629G3_4	12.5	3.44	2.75e4	2.75e4	12.5	1.00
4	4 160629G3_5	12.5	3.43	2.64e4	2.64e4	12.5	1.00
5	5 160629G3_6	12.5	3.42	2.83e4	2.83e4	12.5	1.00
6	6 160629G3_7	12.5	3.43	2.39e4	2.39e4	12.5	1.00
7	7 160629G3_8	12.5	3.43	2.20e4	2.20e4	12.5	1.00
8	8 160629G3_9	12.5	3.43	2.07e4	2.07e4	12.5	1.00
9	9 160629G3_10	12.5	3.43	1.71e4	1.71e4	12.5	1.00

Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.09	1.06e4	1.06e4	12.5	1.00
2	2 160629G3_3	12.5	4.07	1.04e4	1.04e4	12.5	1.00
3	3 160629G3_4	12.5	4.07	1.12e4	1.12e4	12.5	1.00
4	4 160629G3_5	12.5	4.07	1.03e4	1.03e4	12.5	1.00
5	5 160629G3_6	12.5	4.06	1.07e4	1.07e4	12.5	1.00
6	6 160629G3_7	12.5	4.07	9.81e3	9.81e3	12.5	1.00
7	7 160629G3_8	12.5	4.07	8.67e3	8.67e3	12.5	1.00
8	8 160629G3_9	12.5	4.07	8.11e3	8.11e3	12.5	1.00
9	9 160629G3_10	12.5	4.07	6.76e3	6.76e3	12.5	1.00

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
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Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 15), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.39	1.19e4	1.19e4	12.5	1.00
2	2 160629G3_3	12.5	4.38	1.07e4	1.07e4	12.5	1.00
3	3 160629G3_4	12.5	4.38	1.30e4	1.30e4	12.5	1.00
4	4 160629G3_5	12.5	4.37	1.25e4	1.25e4	12.5	1.00
5	5 160629G3_6	12.5	4.36	1.27e4	1.27e4	12.5	1.00
6	6 160629G3_7	12.5	4.37	1.09e4	1.09e4	12.5	1.00
7	7 160629G3_8	12.5	4.37	1.10e4	1.10e4	12.5	1.00
8	8 160629G3_9	12.5	4.37	1.08e4	1.08e4	12.5	1.00
9	9 160629G3_10	12.5	4.37	8.66e3	8.66e3	12.5	1.00

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
Response type: Internal Std (Ref 16), Area * (IS Conc. / IS Area)
Curve type: RF

	#-Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1 160629G3_2	12.5	4.81	6.76e3	6.76e3	12.5	1.00
2	2 160629G3_3	12.5	4.81	7.21e3	7.21e3	12.5	1.00
3	3 160629G3_4	12.5	4.80	6.58e3	6.58e3	12.5	1.00
4	4 160629G3_5	12.5	4.80	6.48e3	6.48e3	12.5	1.00
5	5 160629G3_6	12.5	4.79	6.24e3	6.24e3	12.5	1.00
6	6 160629G3_7	12.5	4.80	6.55e3	6.55e3	12.5	1.00
7	7 160629G3_8	12.5	4.80	6.11e3	6.11e3	12.5	1.00
8	8 160629G3_9	12.5	4.80	5.63e3	5.63e3	12.5	1.00
9	9 160629G3_10	12.5	4.80	5.10e3	5.10e3	12.5	1.00

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 17), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	RRF
1	1	160629G3_2	12.5	4.75	1.08e4	1.08e4	12.5	1.00
2	2	160629G3_3	12.5	4.75	1.11e4	1.11e4	12.5	1.00
3	3	160629G3_4	12.5	4.74	1.09e4	1.09e4	12.5	1.00
4	4	160629G3_5	12.5	4.73	1.23e4	1.23e4	12.5	1.00
5	5	160629G3_6	12.5	4.73	1.11e4	1.11e4	12.5	1.00
6	6	160629G3_7	12.5	4.73	1.03e4	1.03e4	12.5	1.00
7	7	160629G3_8	12.5	4.74	1.10e4	1.10e4	12.5	1.00
8	8	160629G3_9	12.5	4.74	1.02e4	1.02e4	12.5	1.00
9	9	160629G3_10	12.5	4.73	8.78e3	8.78e3	12.5	1.00

Vista Analytical Laboratory VG-9

Dataset: Untitled

Last Altered: Thursday, June 30, 2016 08:30:46 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:31:04 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	160629G3_1	IPA	30-Jun-16	00:11:53
2	160629G3_2	ST160629G3-1 PFC CS0 16F2205	30-Jun-16	00:24:33
3	160629G3_3	ST160629G3-2 PFC CS1 16F2206	30-Jun-16	00:37:11
4	160629G3_4	ST160629G3-3 PFC CS2 16F2207	30-Jun-16	00:49:50
5	160629G3_5	ST160629G3-4 PFC CS3 16F2208	30-Jun-16	01:02:29
6	160629G3_6	ST160629G3-5 PFC CS3.5 16F2209	30-Jun-16	01:15:09
7	160629G3_7	ST160629G3-6 PFC CS4 16F2210	30-Jun-16	01:27:50
8	160629G3_8	ST160629G3-7 PFC CS4.5 16F2211	30-Jun-16	01:40:29
9	160629G3_9	ST160629G3-8 PFC CS5 16F2212	30-Jun-16	01:53:10
10	160629G3_10	ST160629~~G3-8~~ PFC CS6 16F2213	30-Jun-16	02:05:50
11	160629G3_11	IPA G3-9 BR 6/30/16	30-Jun-16	02:18:32
12	160629G3_12	SS160629G3-1 PFC SSS 16F2214	30-Jun-16	02:31:15
13	160629G3_13	IPA	30-Jun-16	02:43:53
14	160629G3_14	1600783-01@25X OFPOL-MW-7-0616 0.125	30-Jun-16	02:56:35
15	160629G3_15	1600783-01@20X OFPOL-MW-7-0616 0.125 (B)	30-Jun-16	03:09:14
16	160629G3_16	1600783-02@20X OFPOL-MW-4-0616 0.125	30-Jun-16	03:21:52
17	160629G3_17	1600783-03@10X OFPOL-MW-8-0616 0.125	30-Jun-16	03:34:31
18	160629G3_18	1600783-04@10X OFPOL-MW-6-0616 0.125	30-Jun-16	03:47:11
19	160629G3_19	1600783-05@10X OFPOL-MW-3-0616 0.125	30-Jun-16	03:59:52
20	160629G3_20	1600783-06@10X OFPOL-MW-3P-0616 0.125	30-Jun-16	04:12:33
21	160629G3_21	1600783-07@10X OFPOL-MW-2-0616 0.125	30-Jun-16	04:25:17
22	160629G3_22	1600783-08@10X OF-MW13-0616 0.125	30-Jun-16	04:37:55
23	160629G3_23	1600783-09@10X OF-MW11-0616 0.125	30-Jun-16	04:50:33
24	160629G3_24	IPA	30-Jun-16	05:03:12
25	160629G3_25	ST160629G3-10 PFC CS3.5 16F2209	30-Jun-16	05:15:52
26	160629G3_26	IPA	30-Jun-16	05:28:34
27	160629G3_27	1600783-01@5X OFPOL-MW-7-0616 0.125 (B)	30-Jun-16	05:41:15
28	160629G3_28	1600783-02@5X OFPOL-MW-4-0616 0.125	30-Jun-16	05:53:55
29	160629G3_29	IPA	30-Jun-16	06:06:34
30	160629G3_30	ST160629G3-11 PFC CS3.5 16F2209	30-Jun-16	06:19:16
31	160629G3_31	IPA	30-Jun-16	06:31:58

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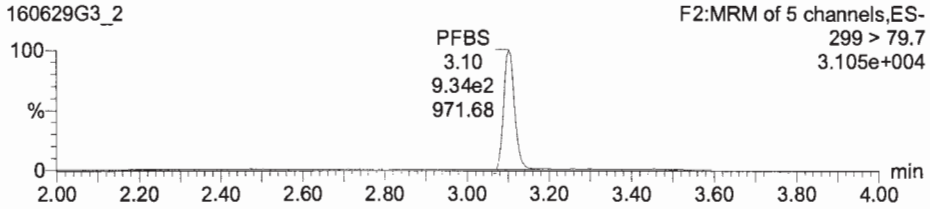
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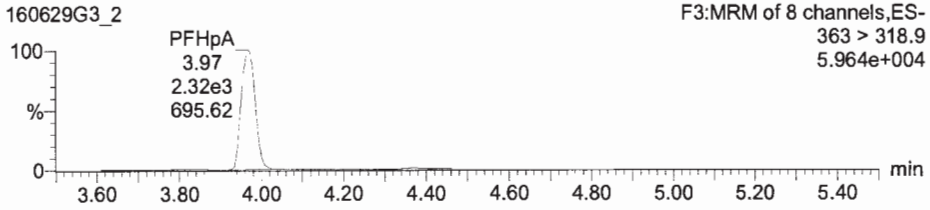
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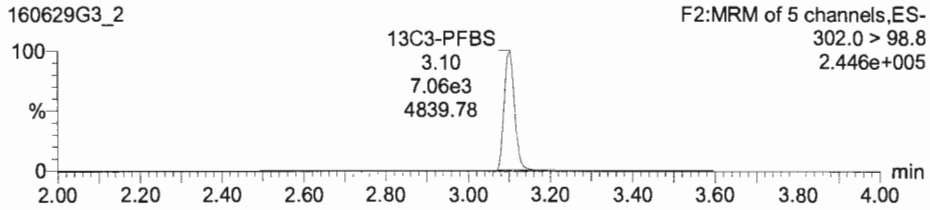
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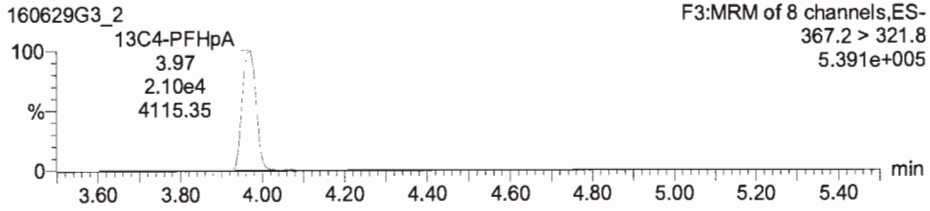
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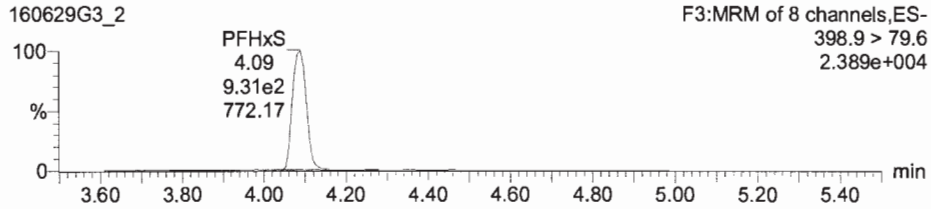
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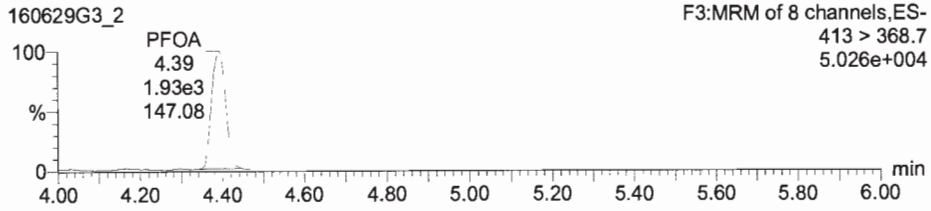
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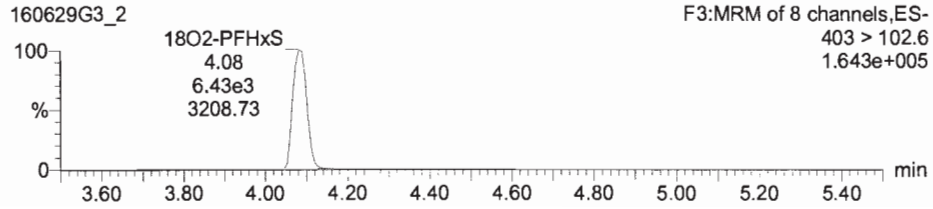
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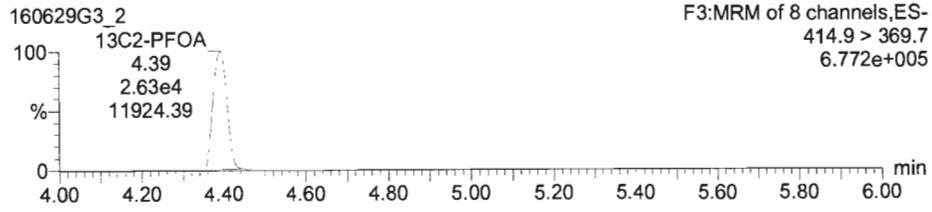
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18O2-PFHxS



13C2-PFOA

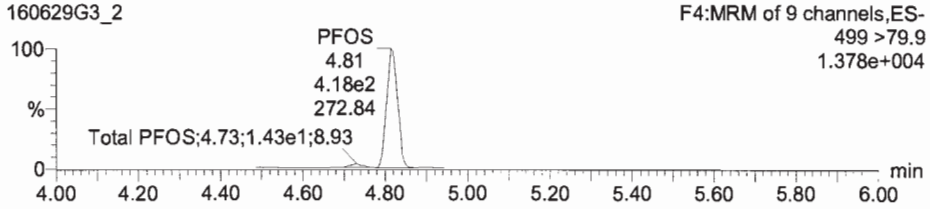


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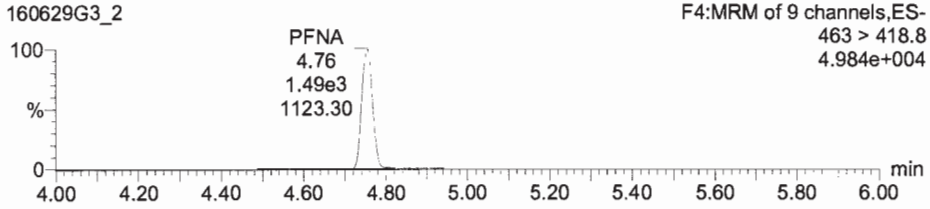
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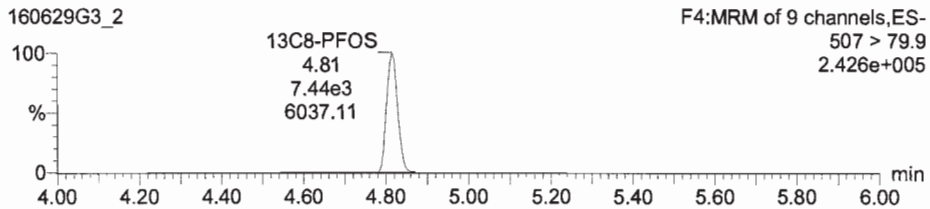
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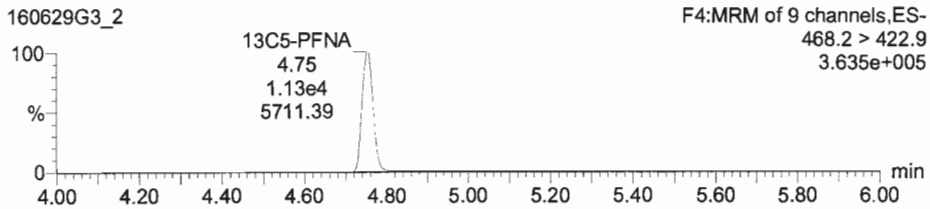
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13C8-PFOS



13C5-PFNA

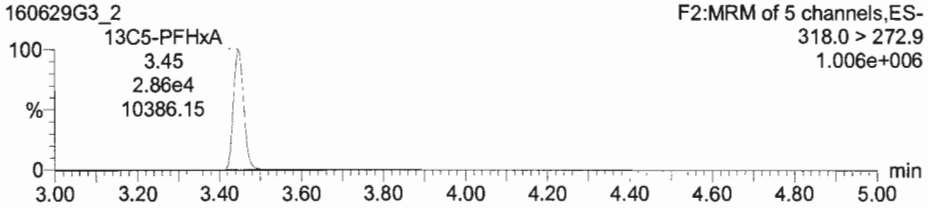


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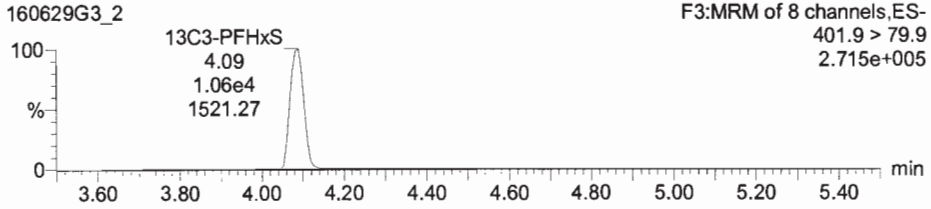
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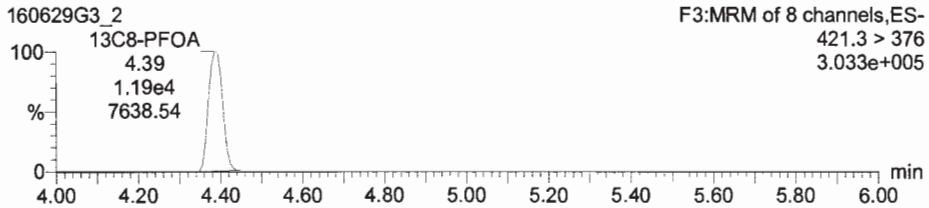
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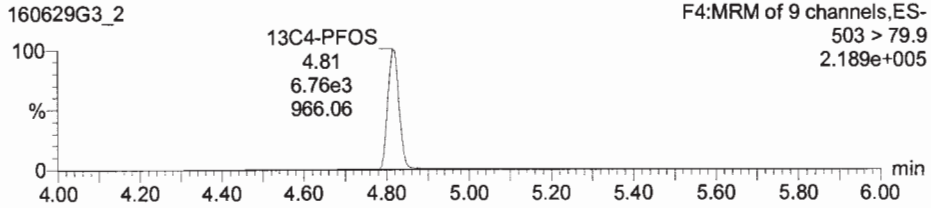
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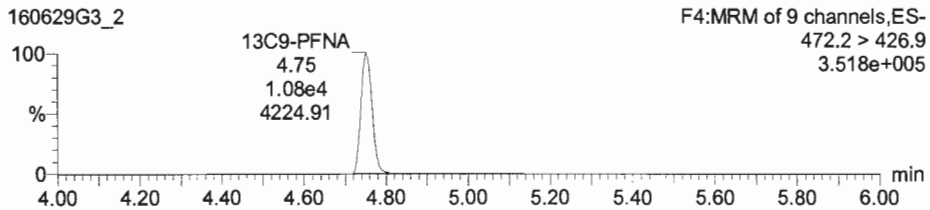
13C8-PFOA



13C4-PFOS



13C9-PFNA

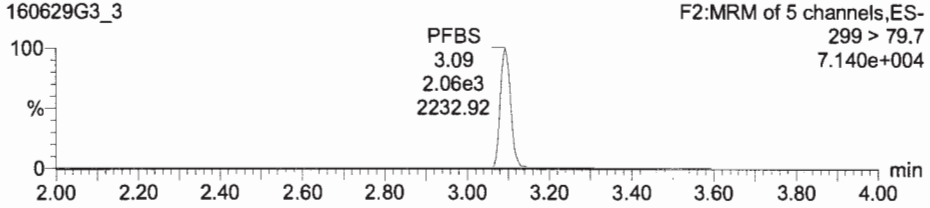


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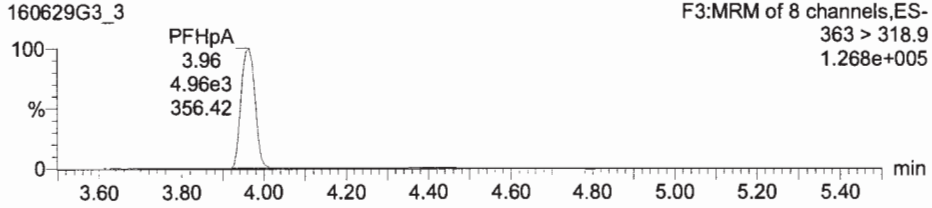
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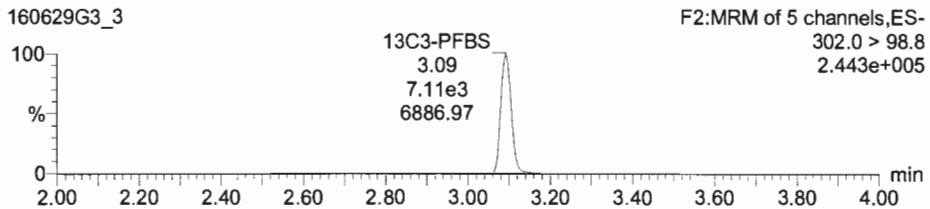
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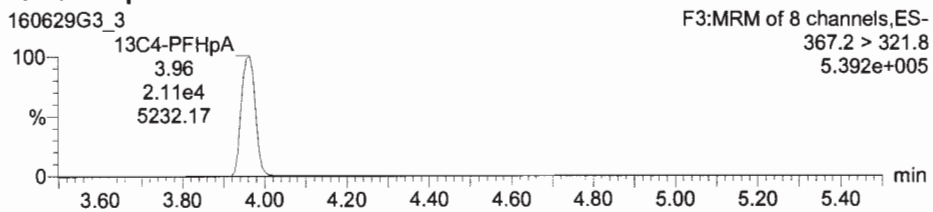
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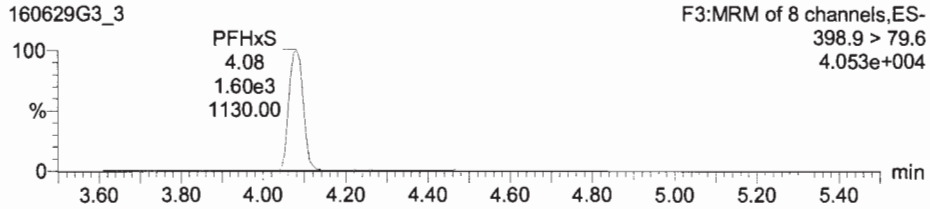
13C3-PFBS



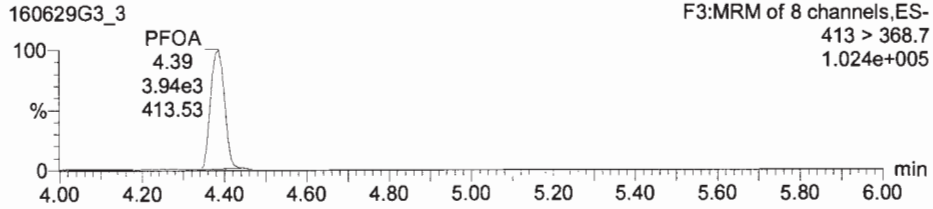
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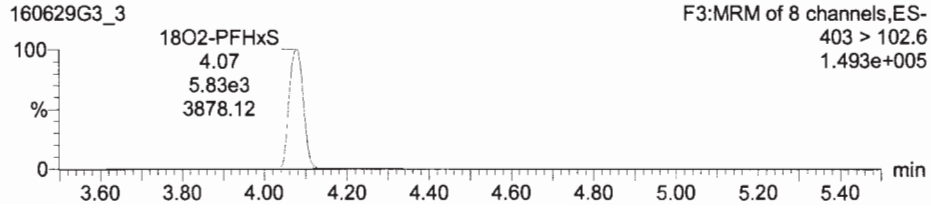
PFHxS



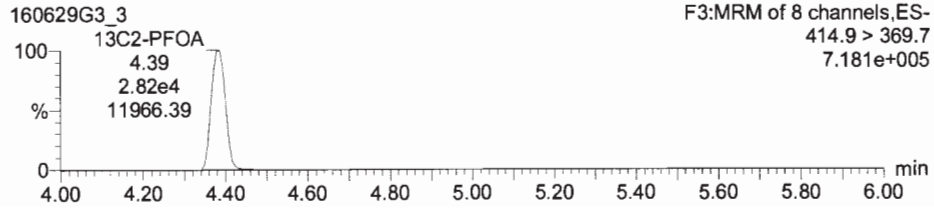
PFOA



18O2-PFHxS



13C2-PFOA

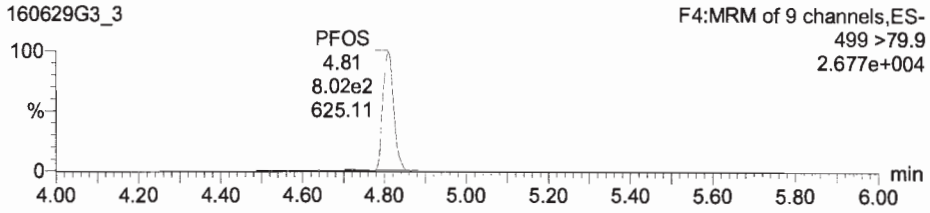


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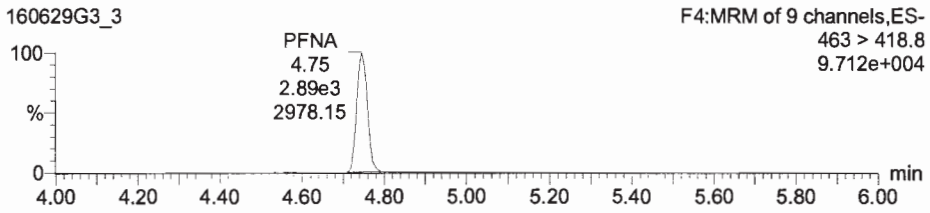
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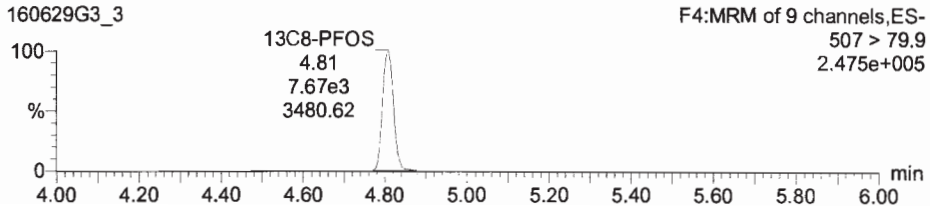
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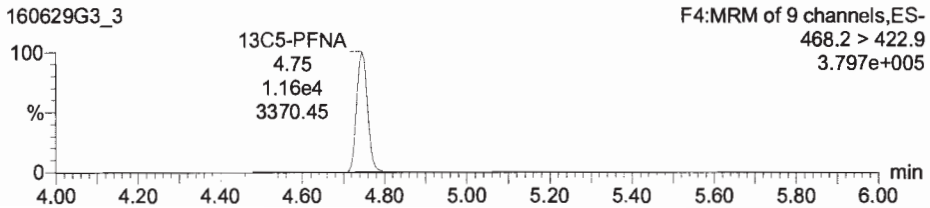
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13C8-PFOS



13C5-PFNA

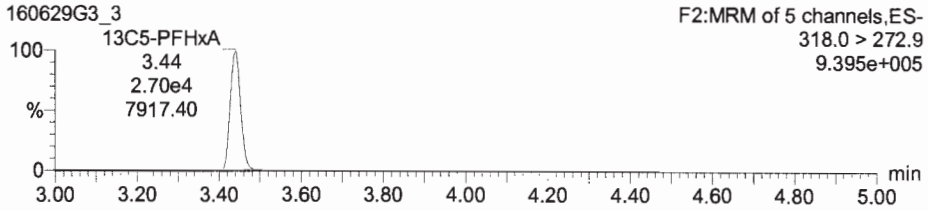


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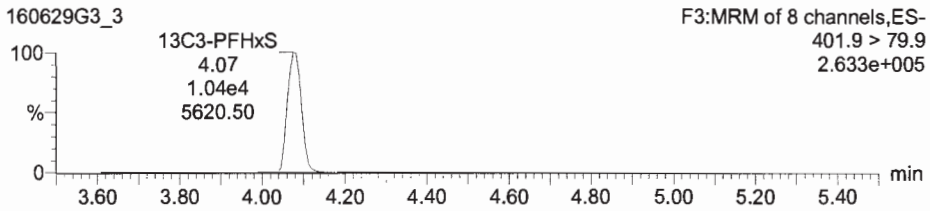
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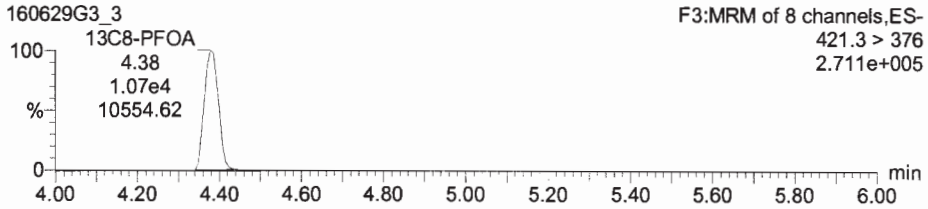
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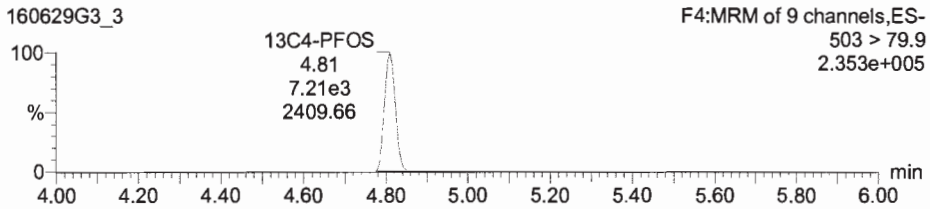
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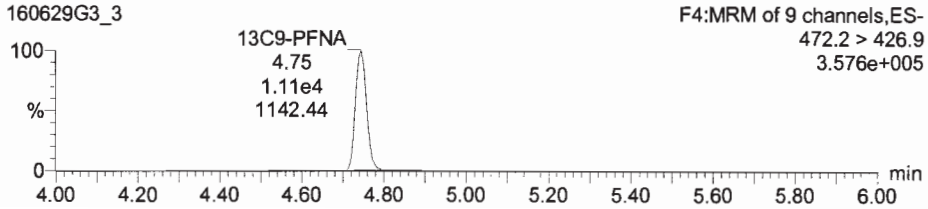
13C8-PFOA



13C4-PFOS



13C9-PFNA

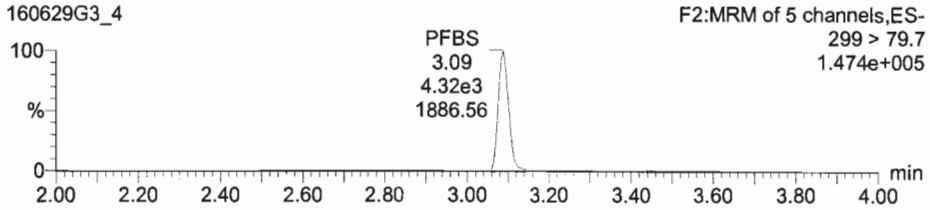


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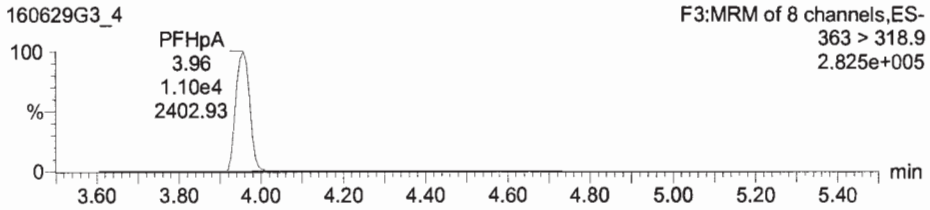
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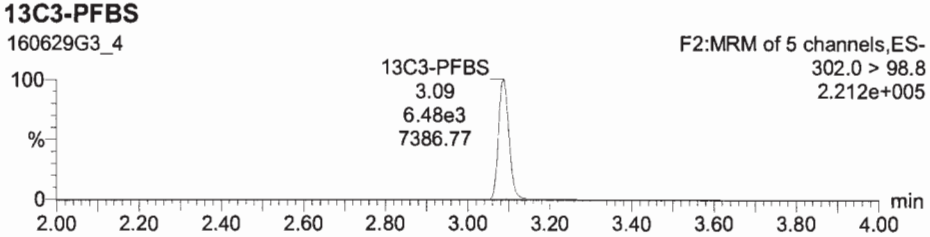
PFBS



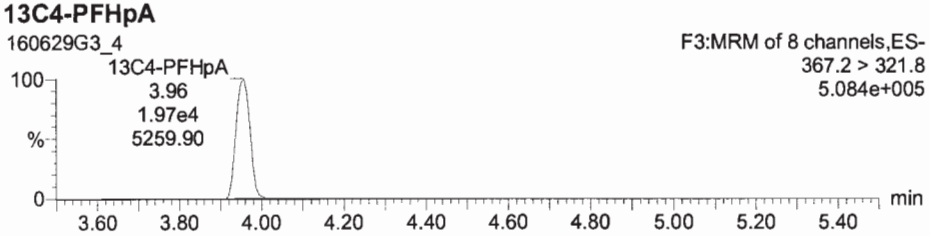
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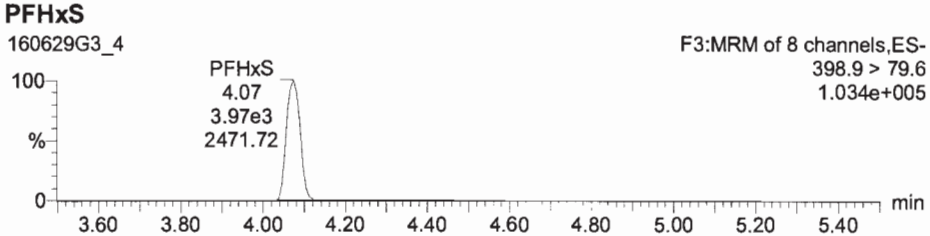
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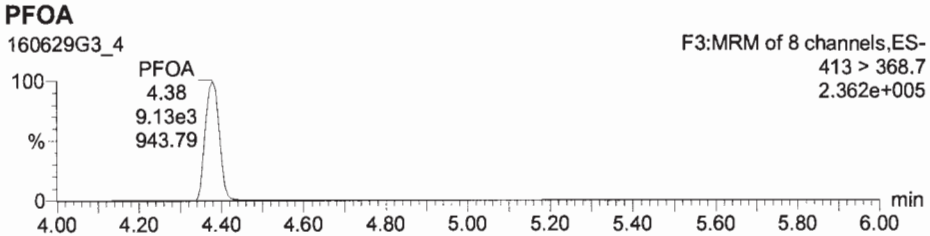
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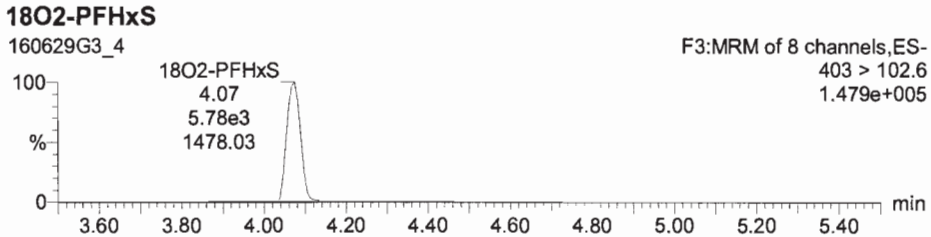
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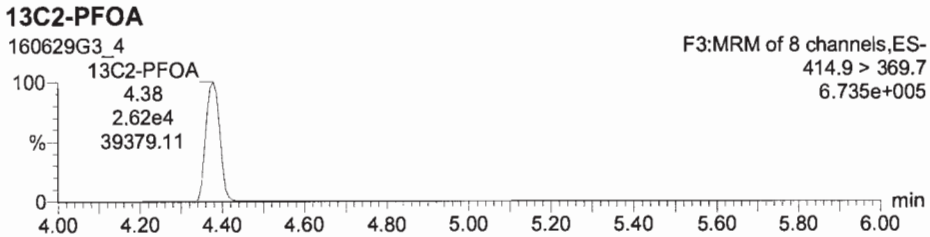
PFOA



18O2-PFHxS



13C2-PFOA

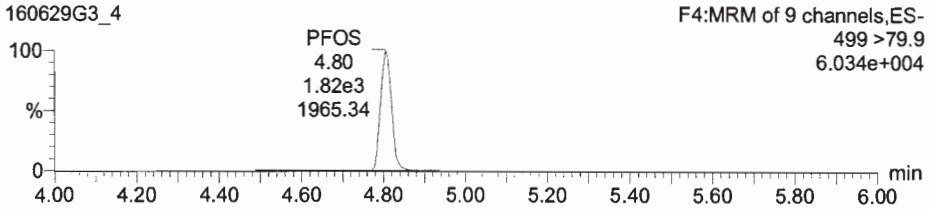


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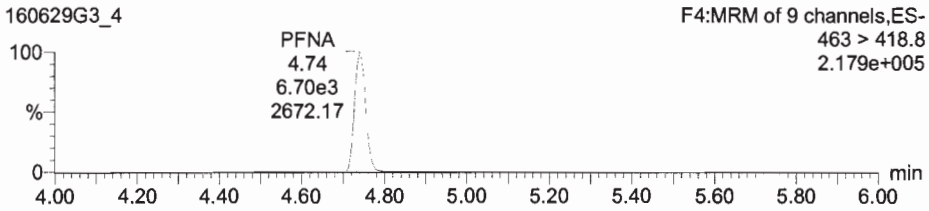
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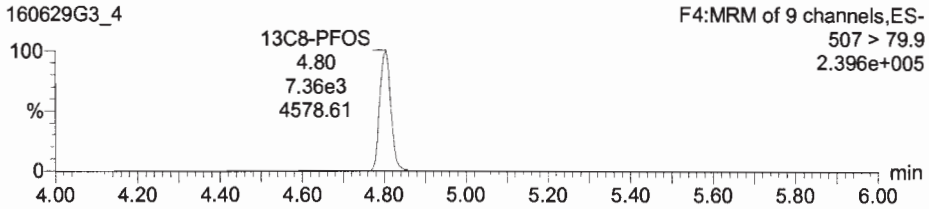
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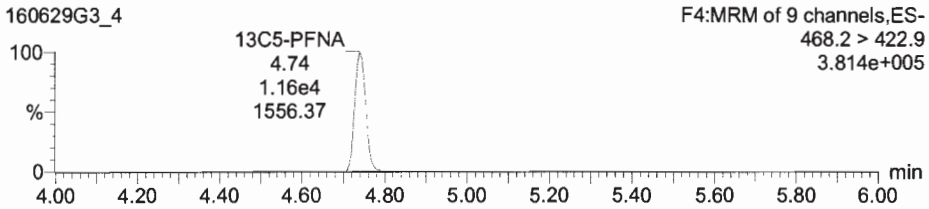
PFNA



13C8-PFOS



13C5-PFNA

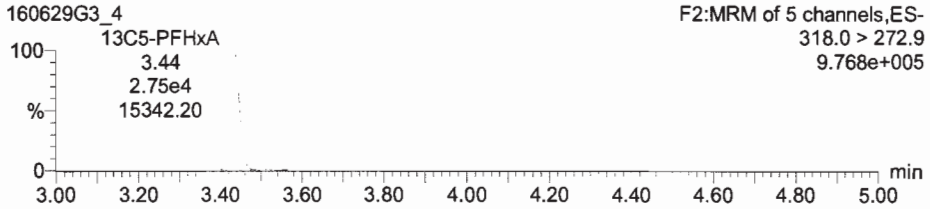


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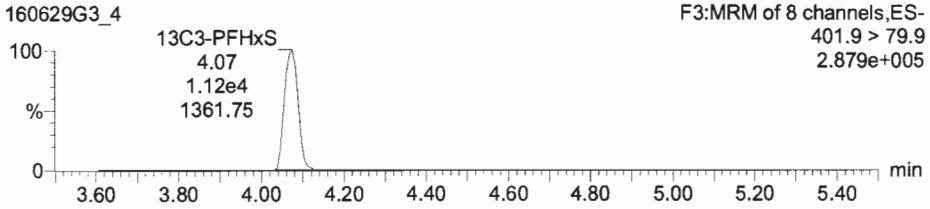
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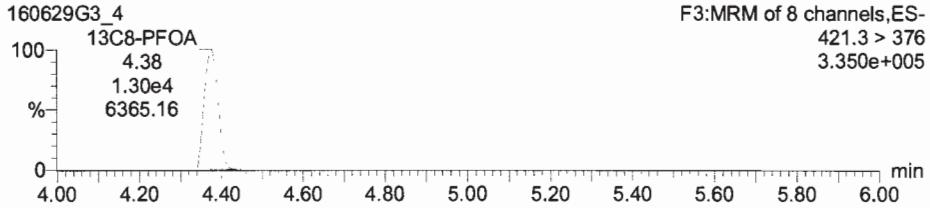
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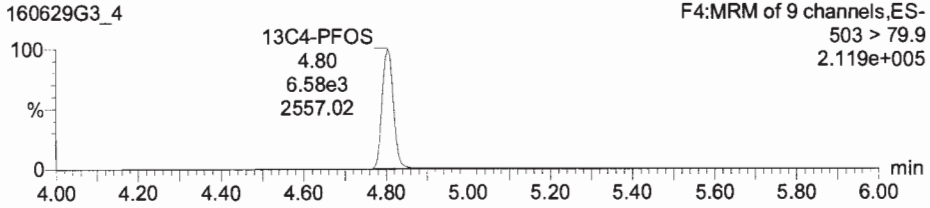
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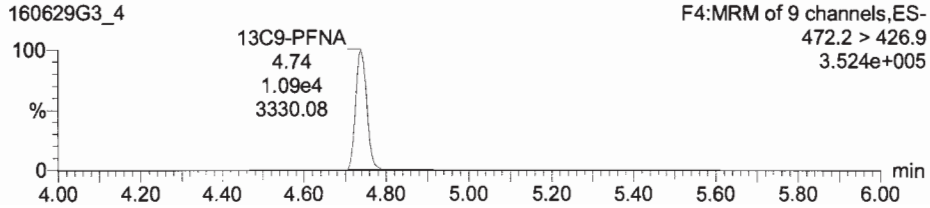
13C8-PFOA



13C4-PFOS



13C9-PFNA

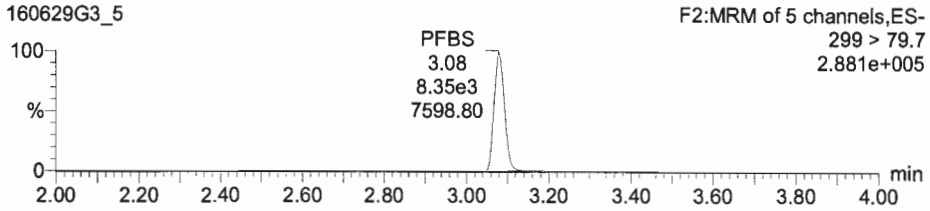


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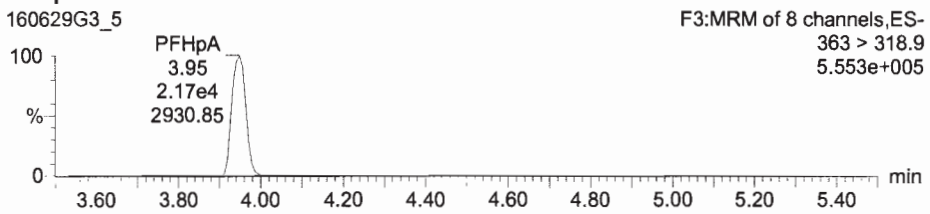
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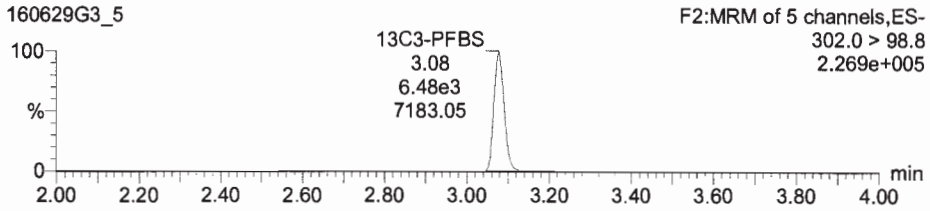
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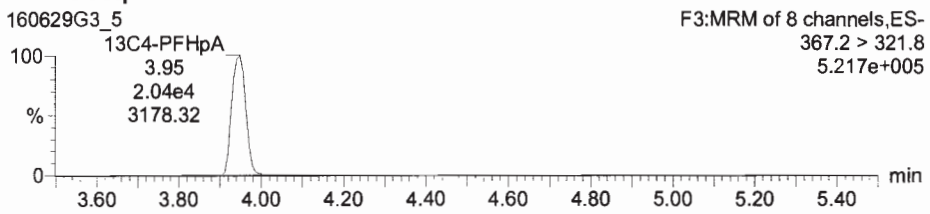
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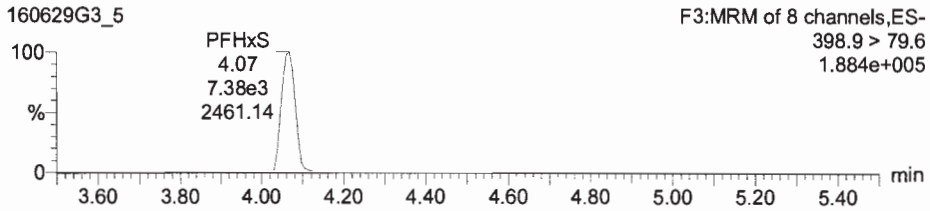
13C3-PFBS



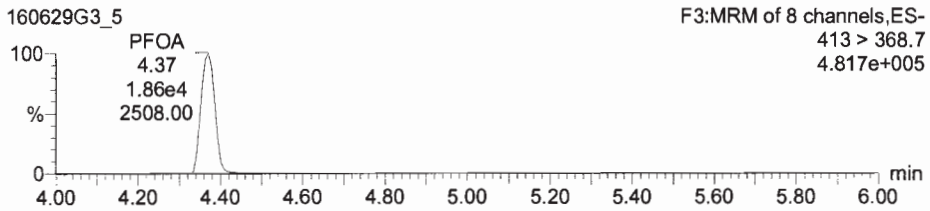
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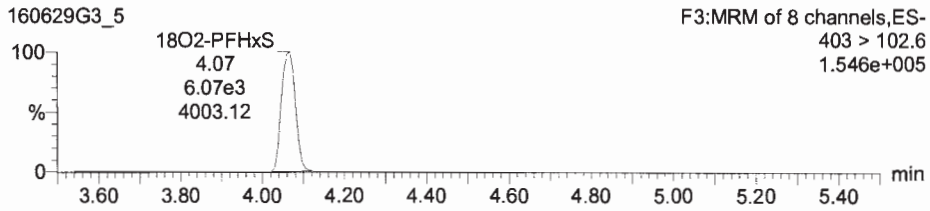
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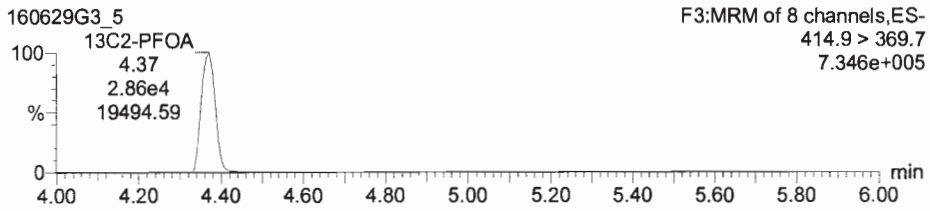
PFOA



18O2-PFHxS



13C2-PFOA

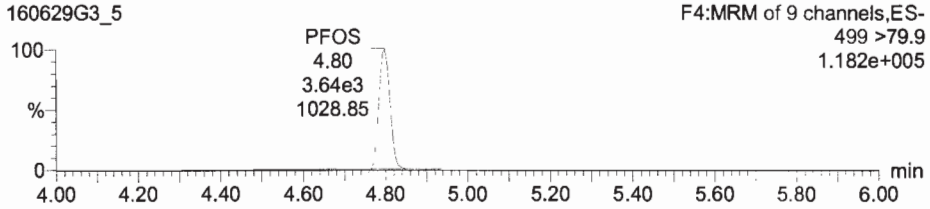


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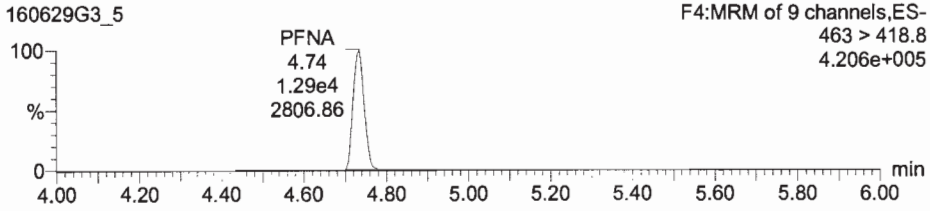
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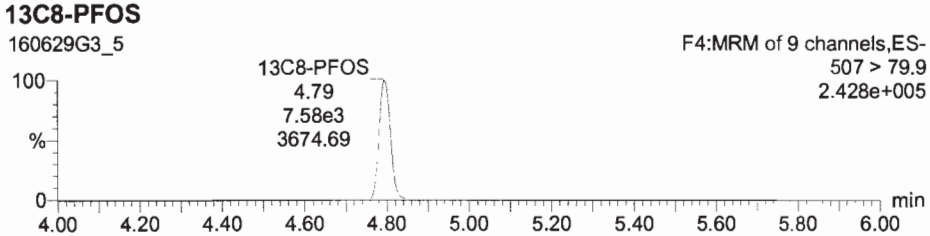
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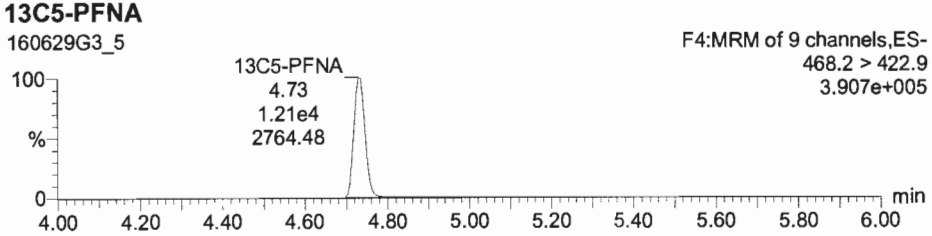
PFNA



13C8-PFOS



13C5-PFNA

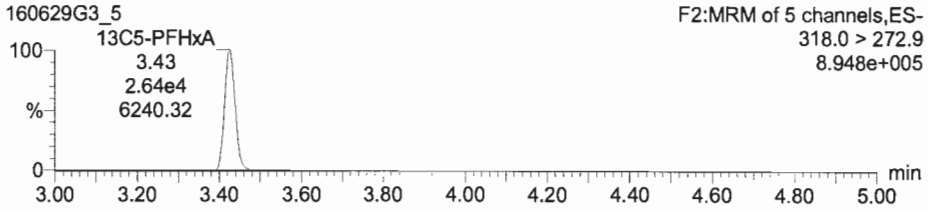


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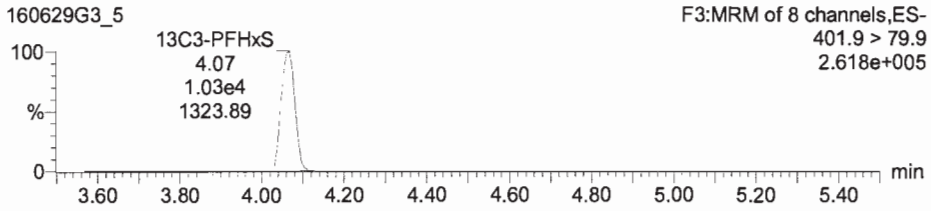
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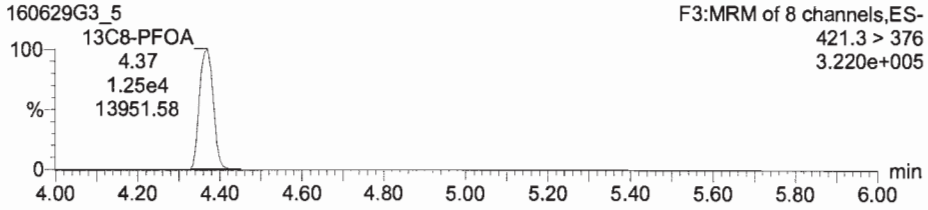
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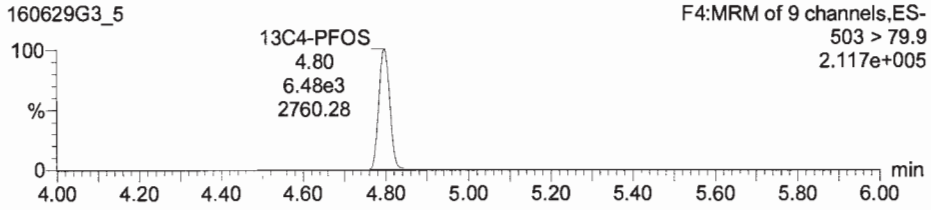
13C3-PFHxS



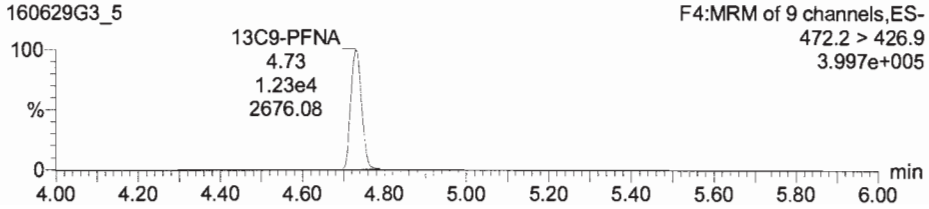
13C8-PFOA



13C4-PFOS



13C9-PFNA

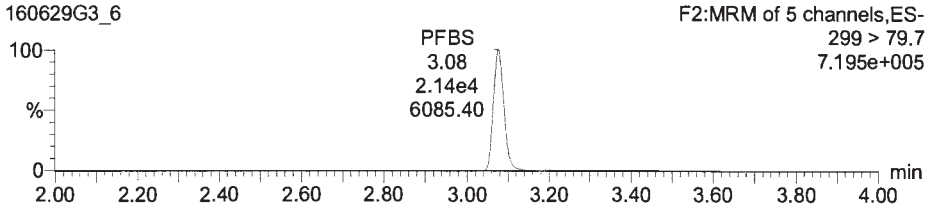


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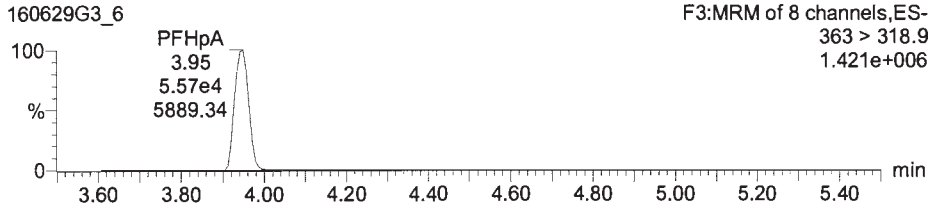
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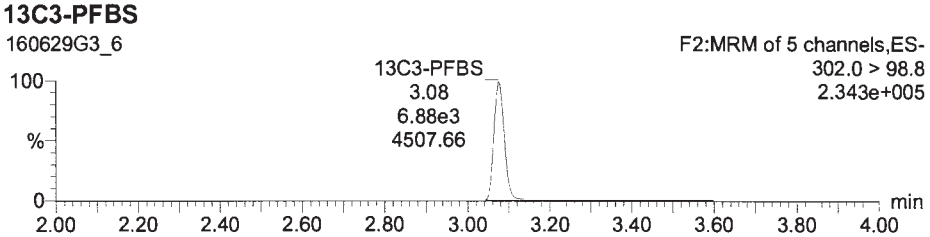
PFBS



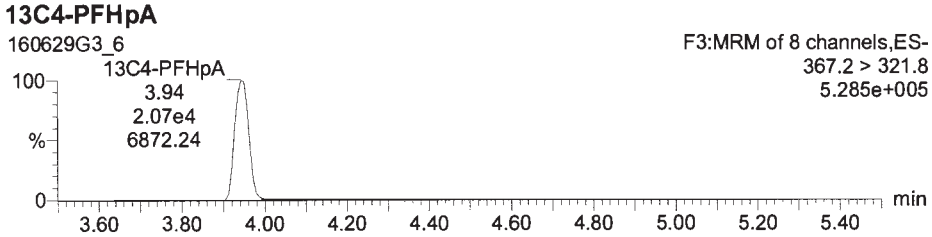
PFHpA



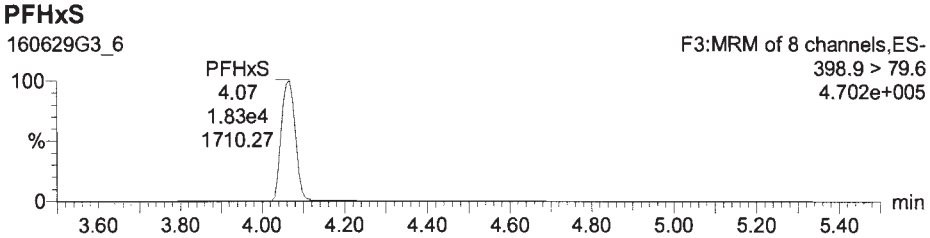
13C3-PFBS



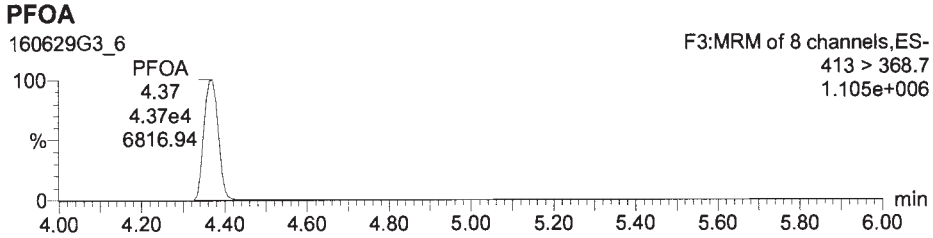
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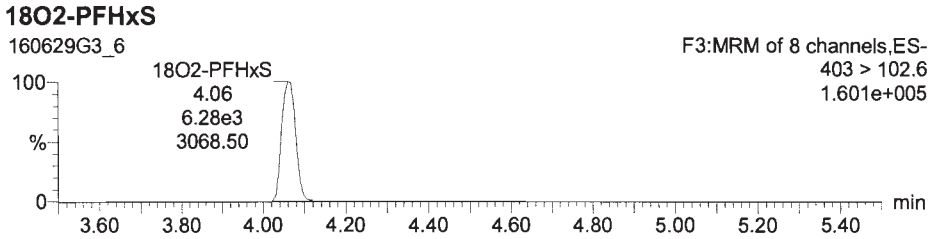
PFHxS



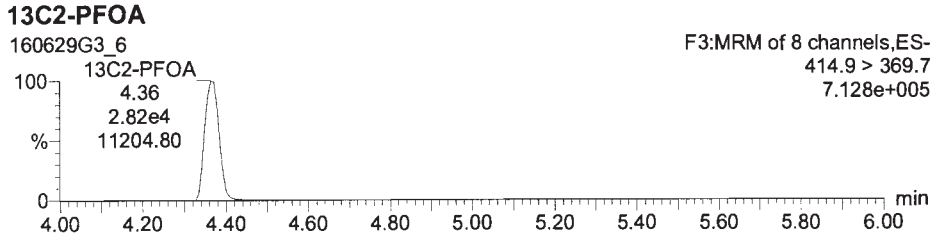
PFOA



18O2-PFHxS



13C2-PFOA

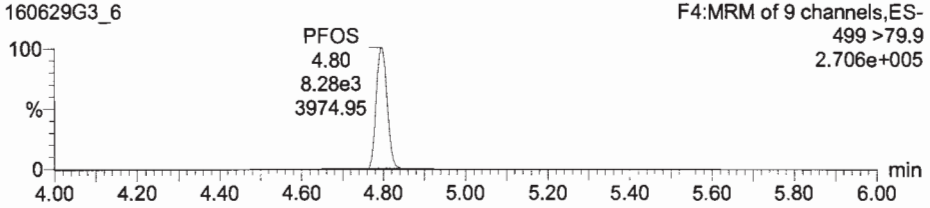


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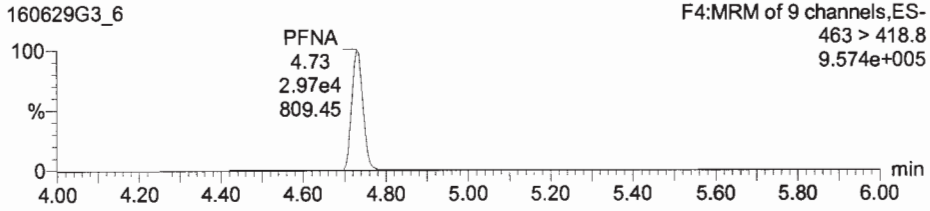
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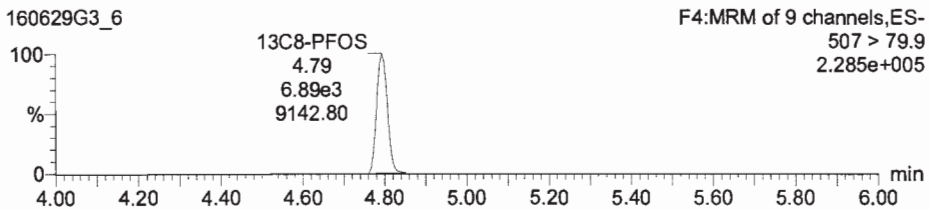
PFOS



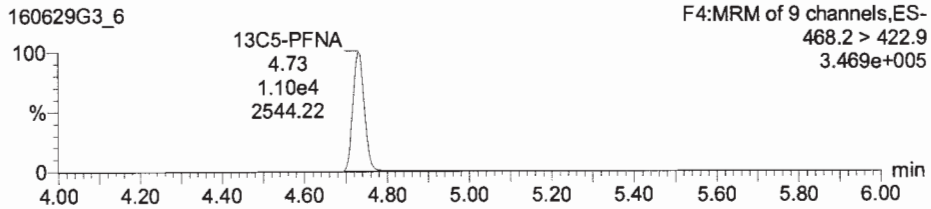
PFNA



13C8-PFOS



13C5-PFNA

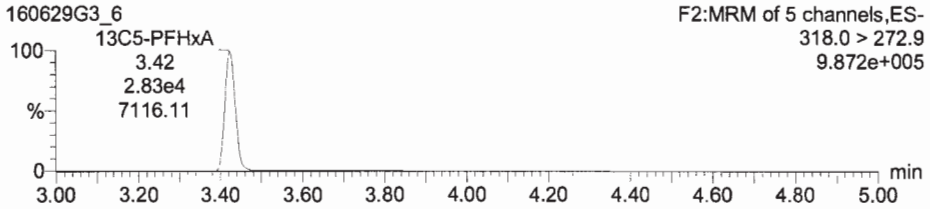


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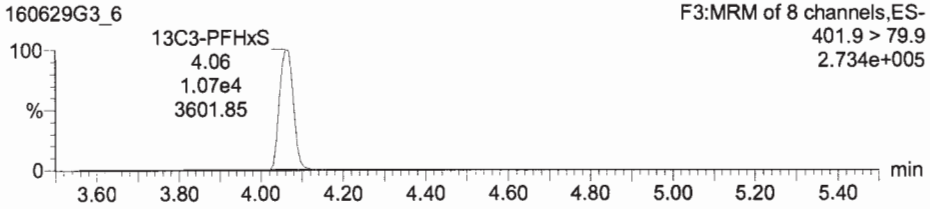
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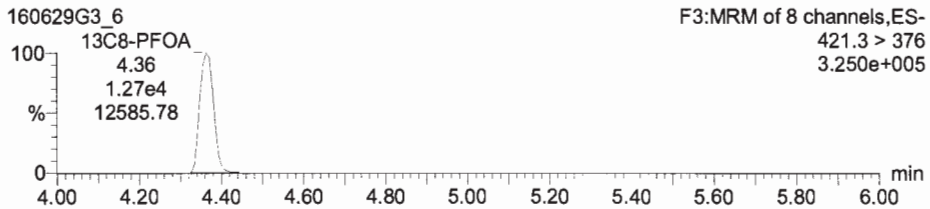
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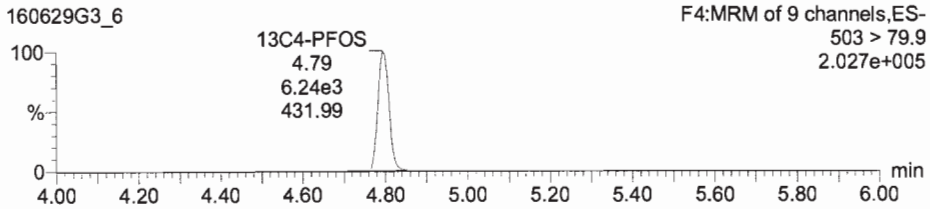
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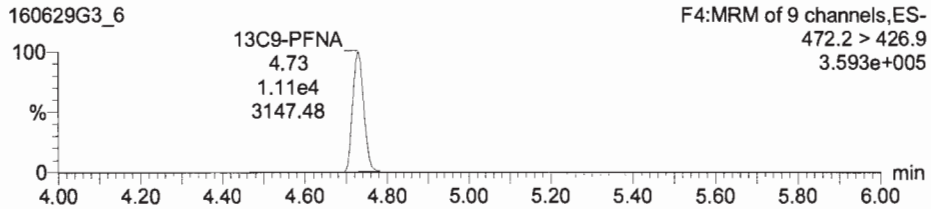
13C8-PFOA



13C4-PFOS



13C9-PFNA

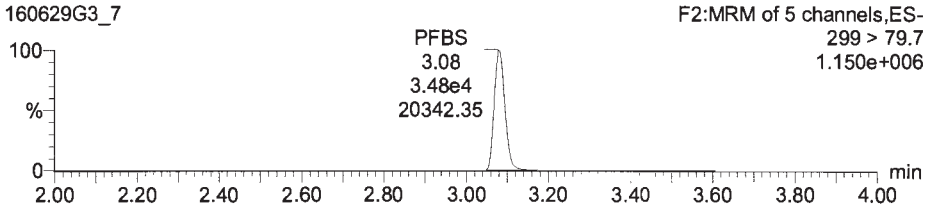


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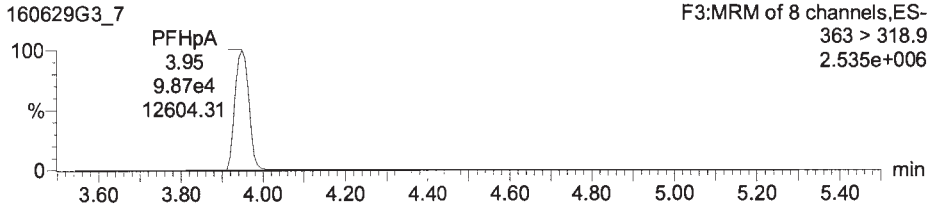
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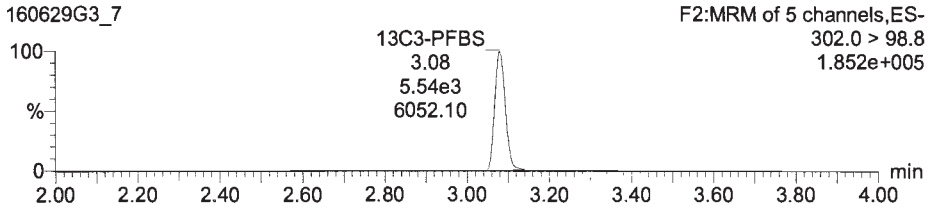
PFBS



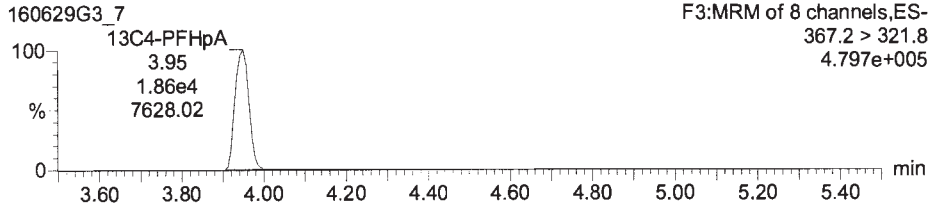
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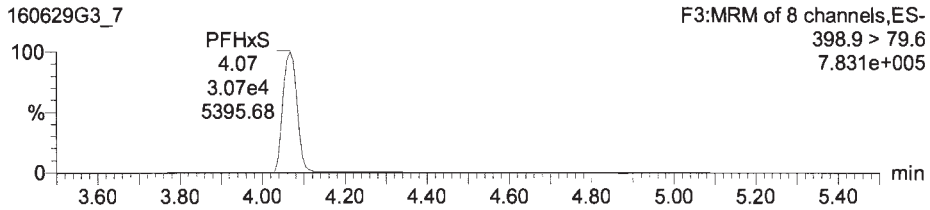
13C3-PFBS



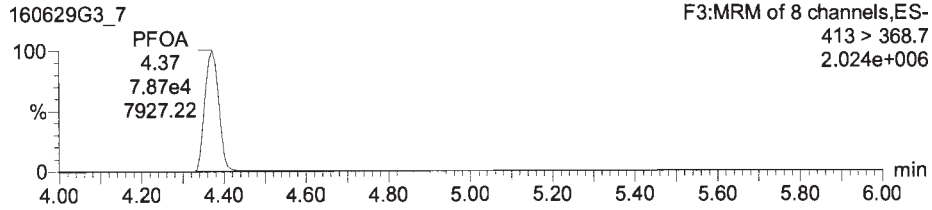
13C4-PFHpA



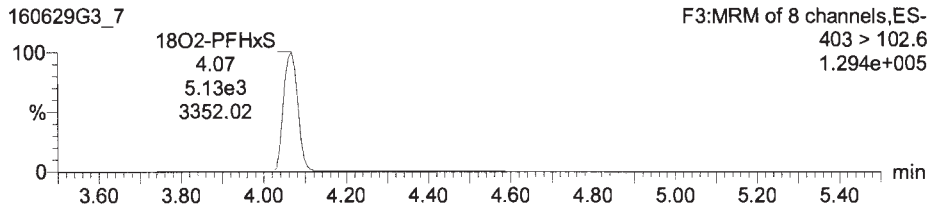
PFHxS



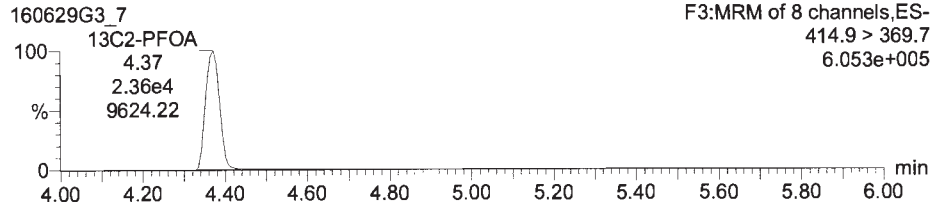
PFOA



18O2-PFHxS



13C2-PFOA

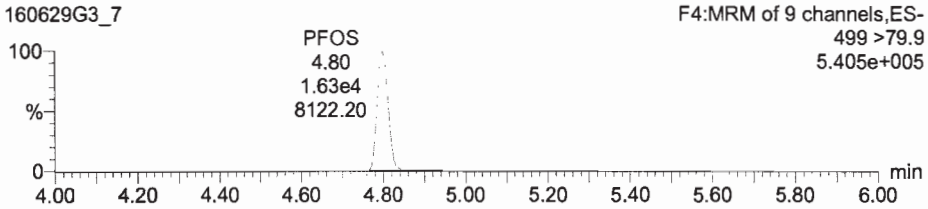


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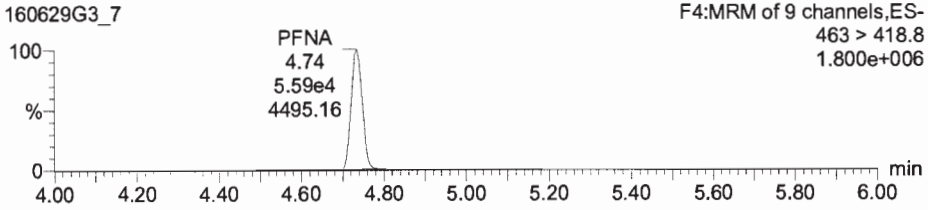
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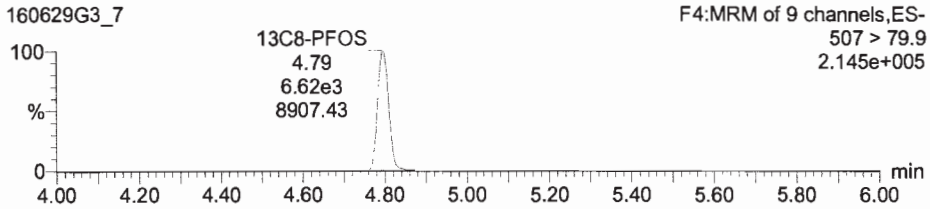
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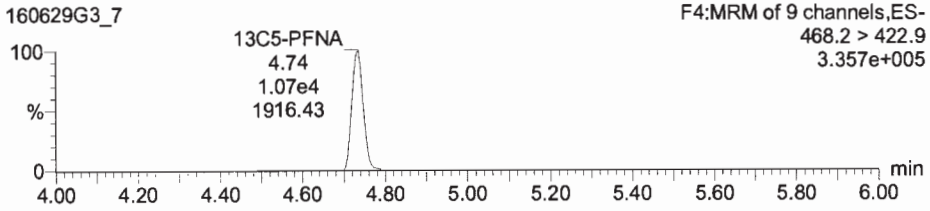
PFNA



13C8-PFOS



13C5-PFNA

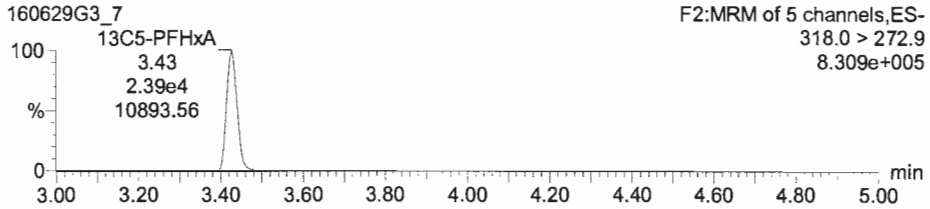


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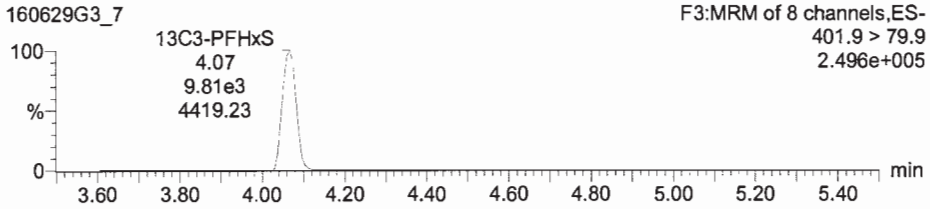
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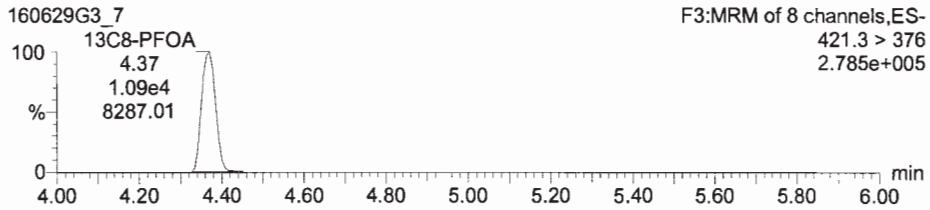
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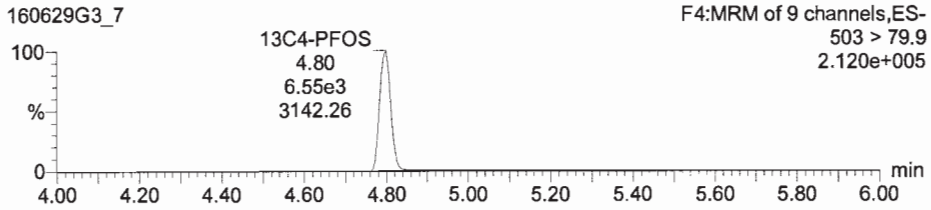
13C3-PFHxS



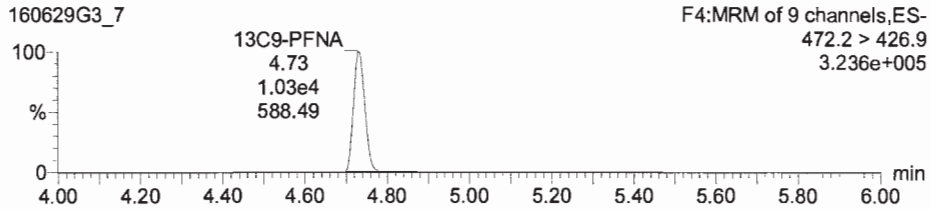
13C8-PFOA



13C4-PFOS



13C9-PFNA

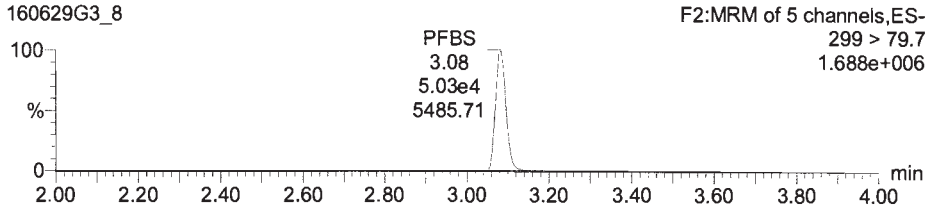


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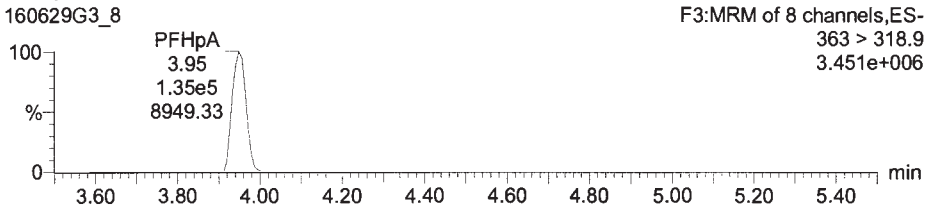
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Name: 160629G3_8, Date: 30-Jun-2016, Time: 01:40:29, ID: ST160629G3-7 PFC CS4.5 16F2211, Description: PFC CS4.5 16F2211 A

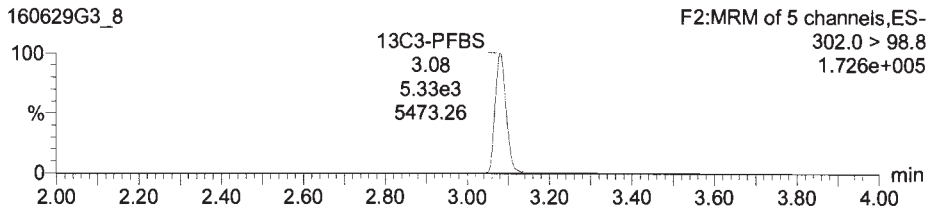
PFBS



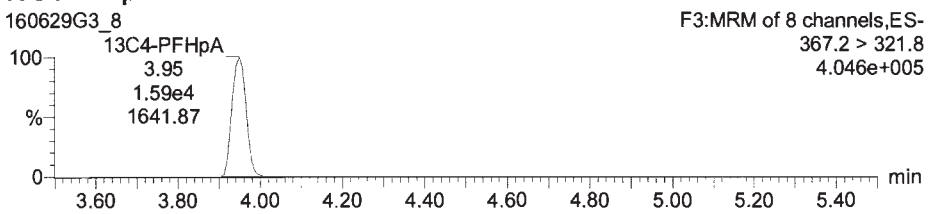
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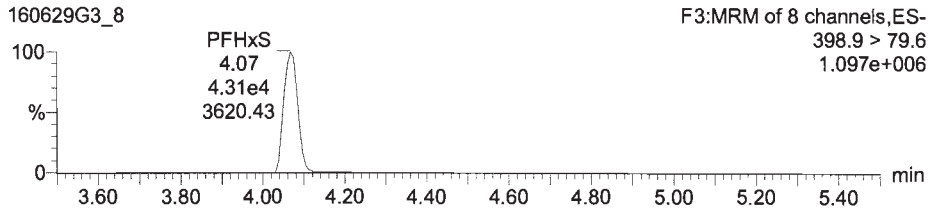
13C3-PFBS



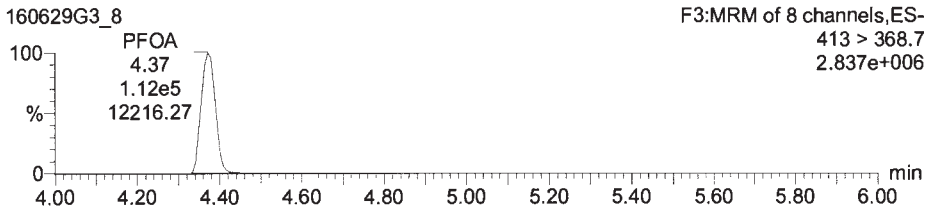
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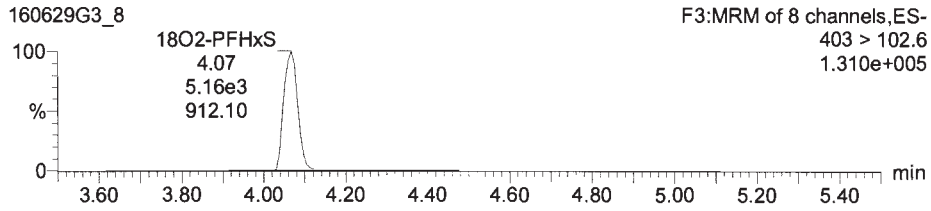
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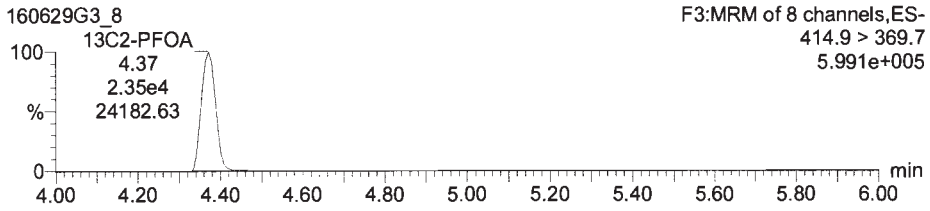
PFOA



18O2-PFHxS



13C2-PFOA

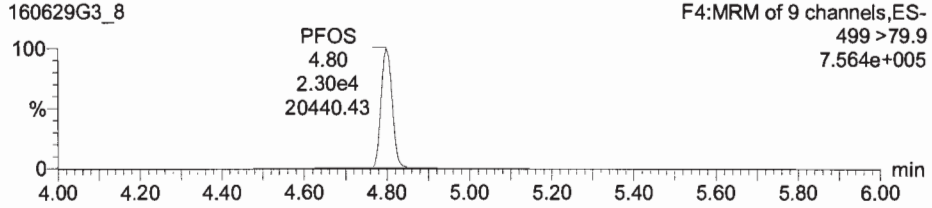


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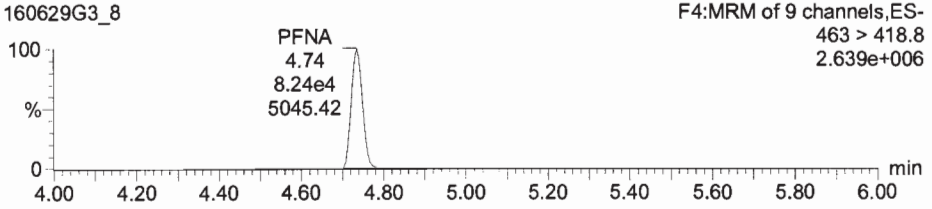
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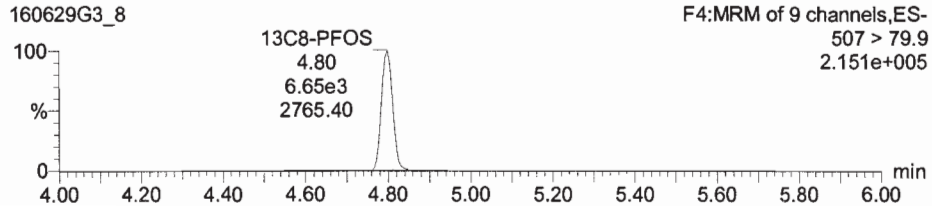
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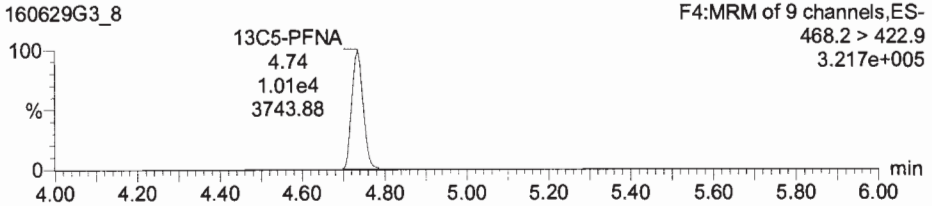
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13C8-PFOS



13C5-PFNA

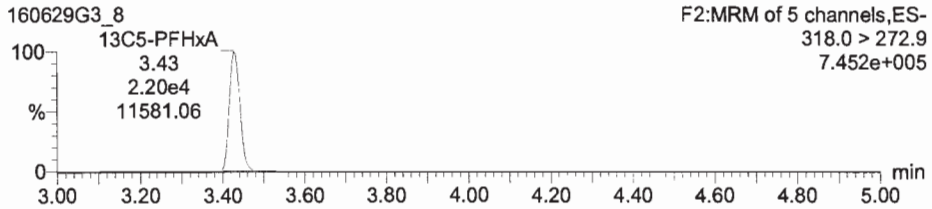


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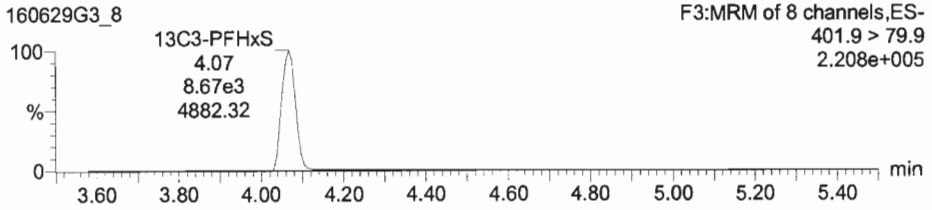
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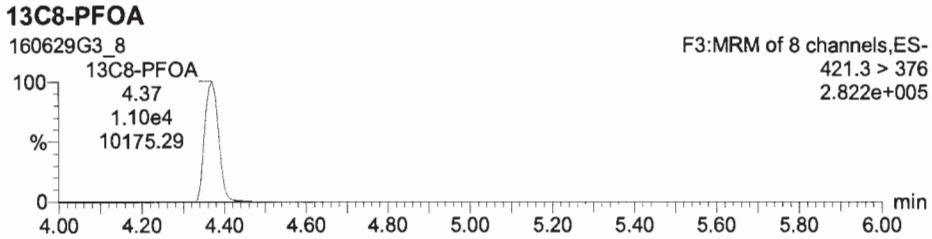
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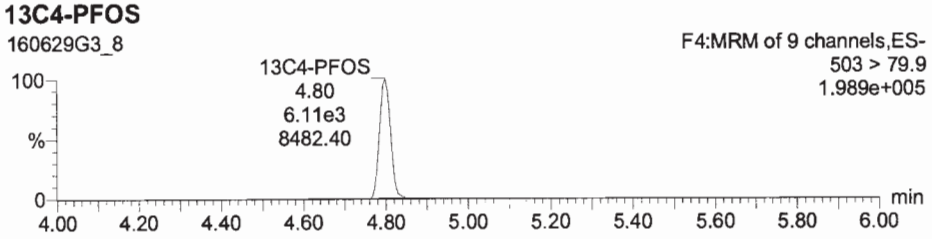
13C3-PFHxS



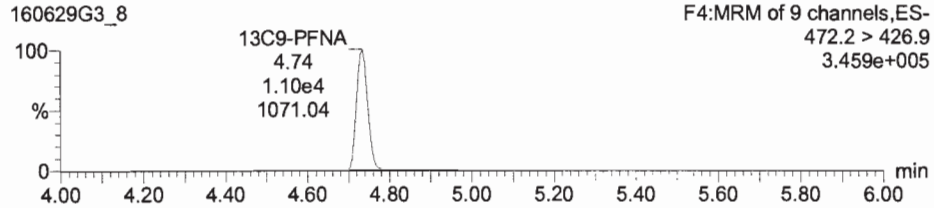
13C8-PFOA



13C4-PFOS



13C9-PFNA

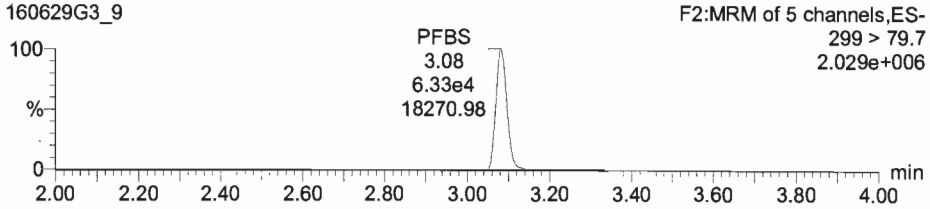


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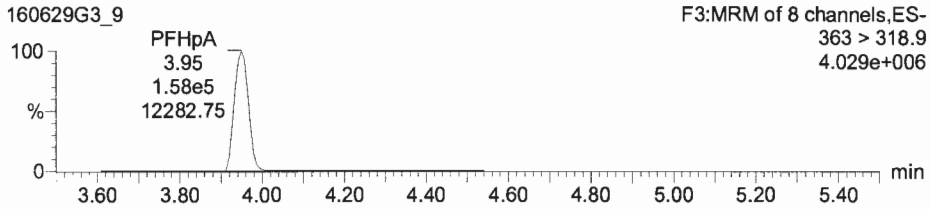
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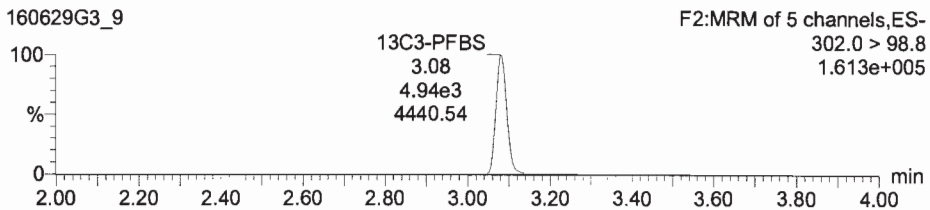
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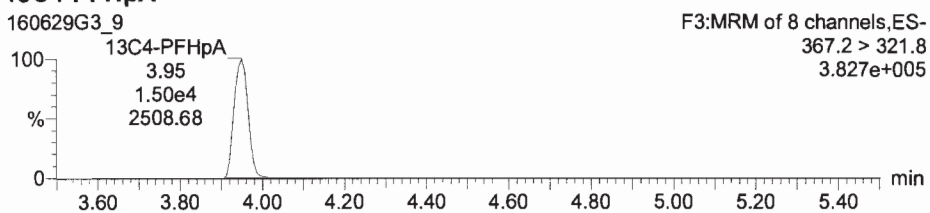
PFHpA



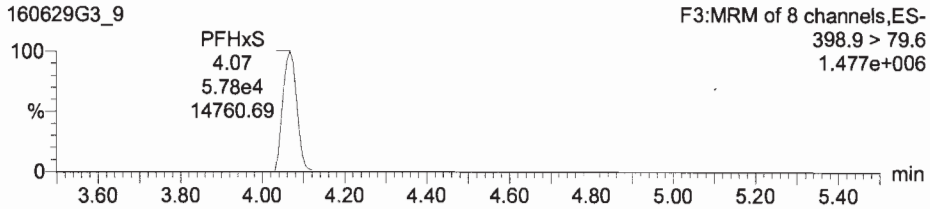
13C3-PFBS



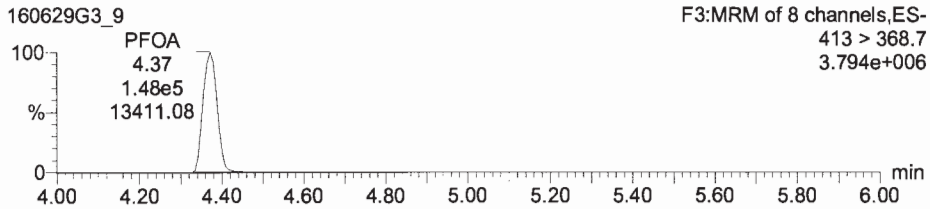
13C4-PFHpA



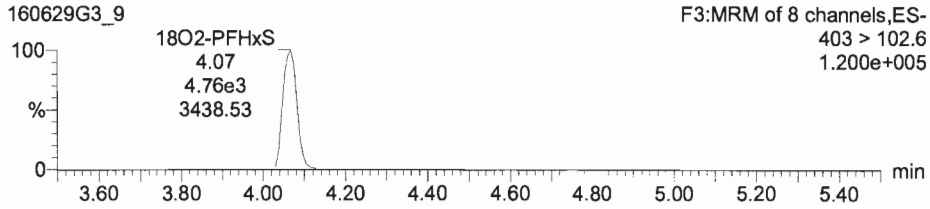
PFHxS



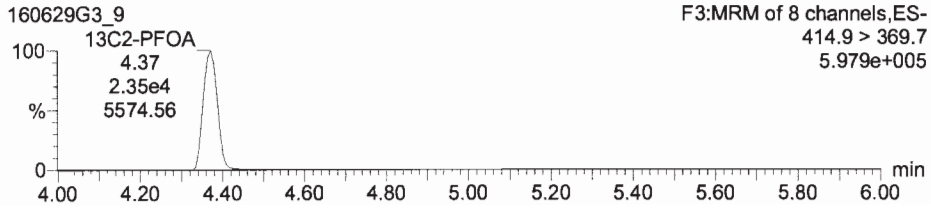
PFOA



18O2-PFHxS



13C2-PFOA

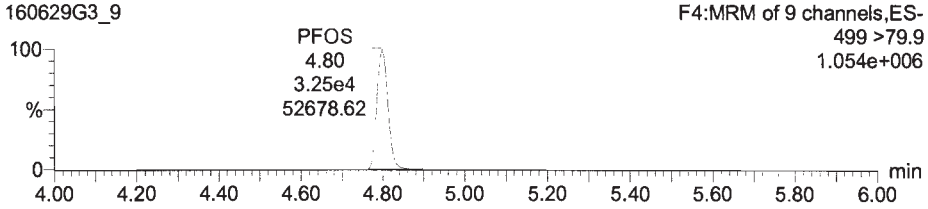


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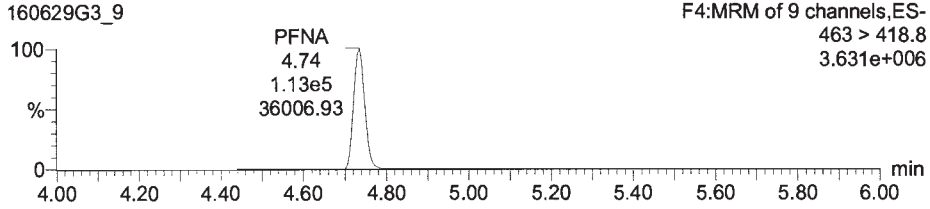
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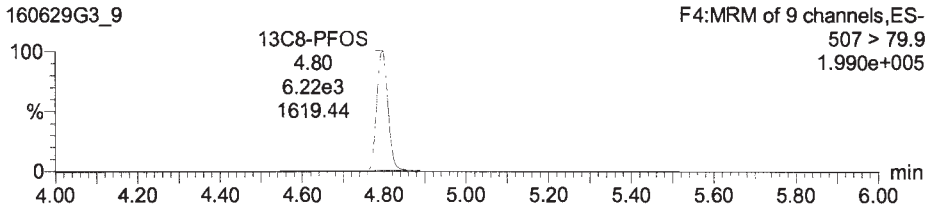
PFOS



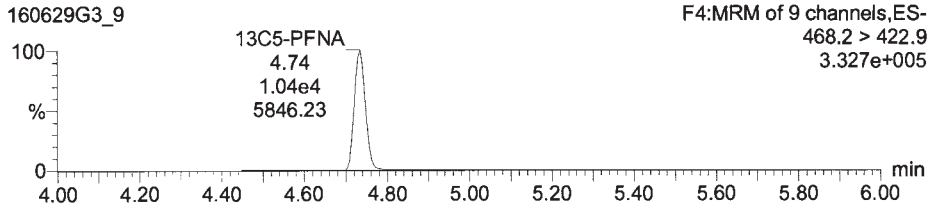
PFNA



13C8-PFOS



13C5-PFNA

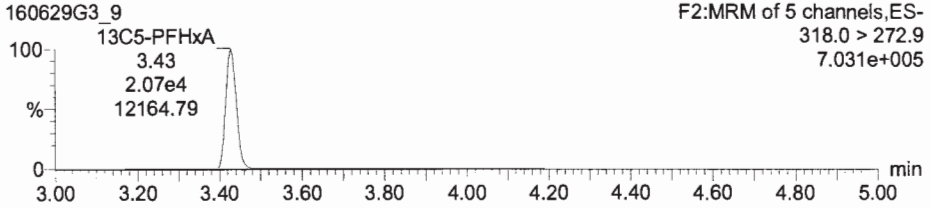


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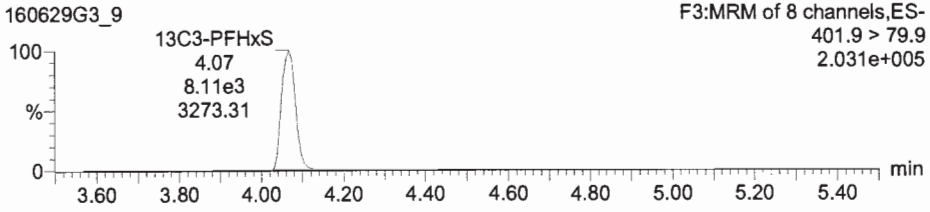
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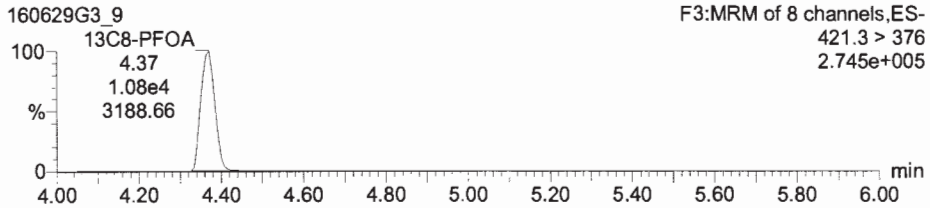
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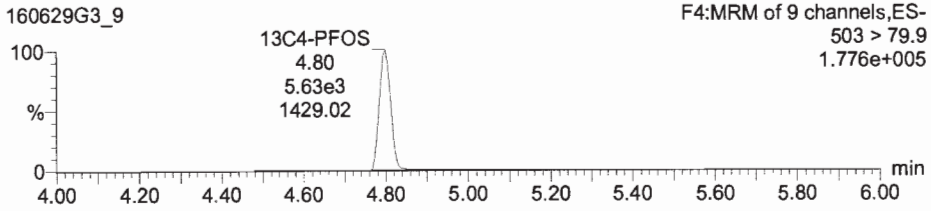
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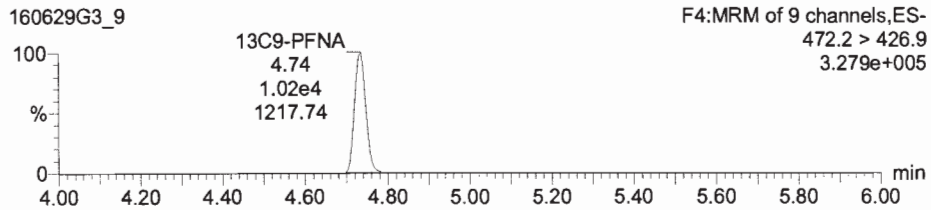
13C8-PFOA



13C4-PFOS



13C9-PFNA

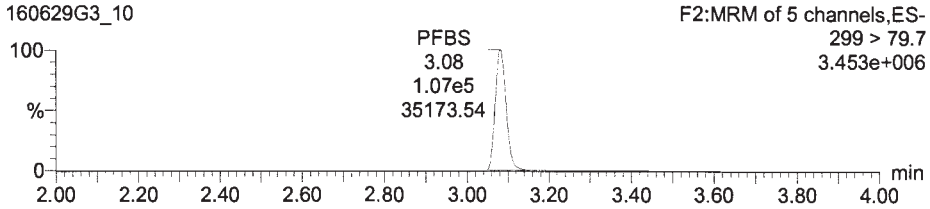


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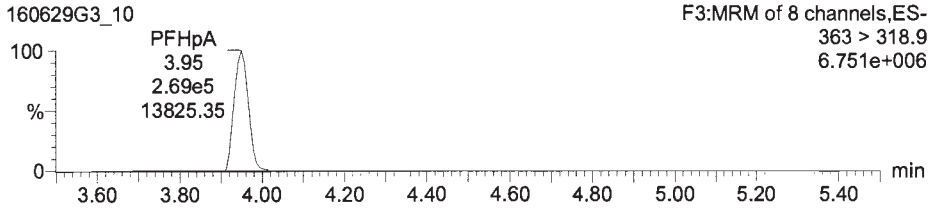
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Printed: Thursday, June 30, 2016 08:29:01 Pacific Daylight Time

Name: 160629G3_10, Date: 30-Jun-2016, Time: 02:05:50, ID: ST160629G9-3 PFC CS6 16F2213, Description: PFC CS6 16F2213 A

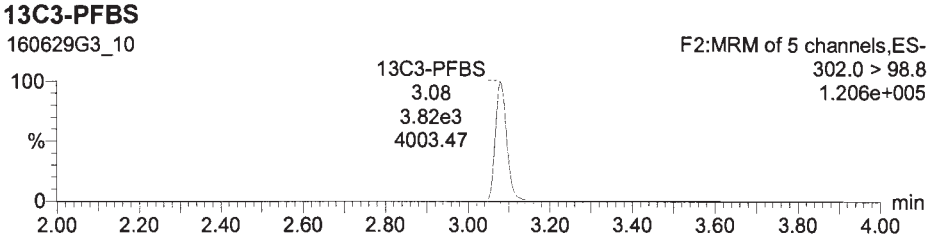
PFBS



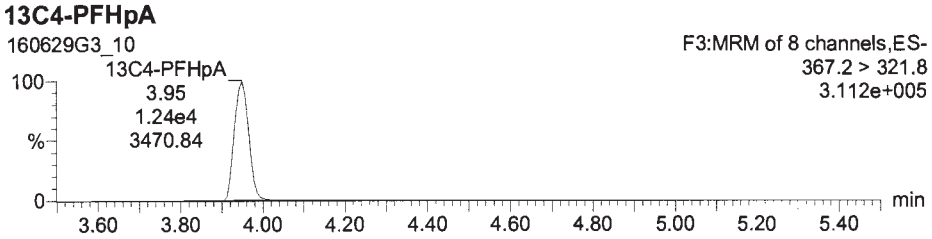
PFHpA



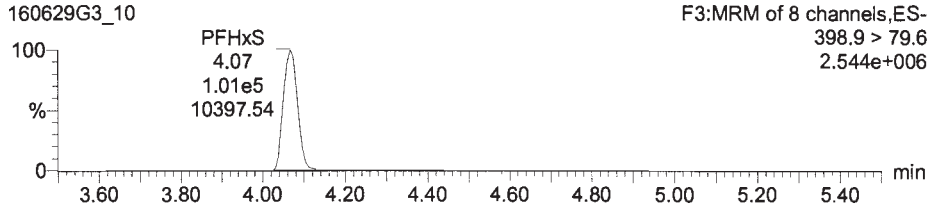
13C3-PFBS



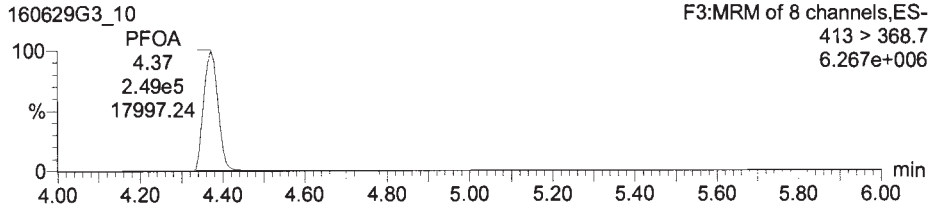
13C4-PFHpA



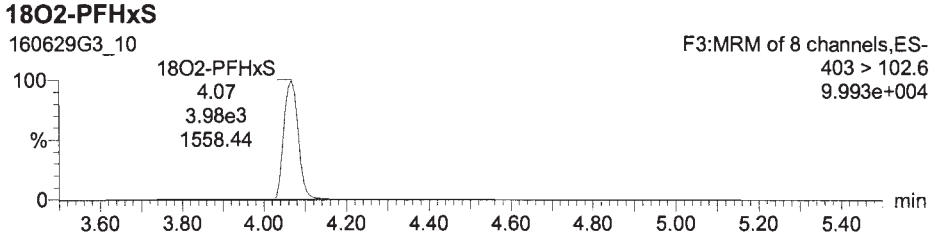
PFHxS



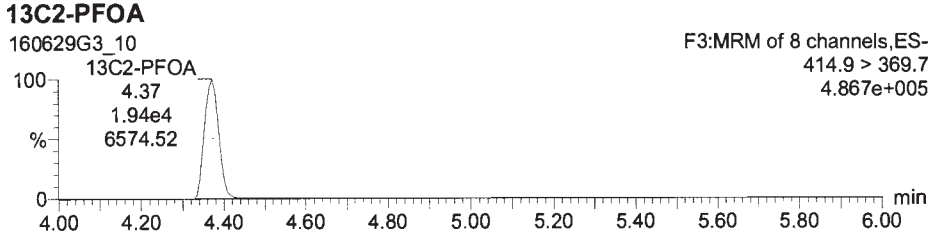
PFOA



18O2-PFHxS



13C2-PFOA

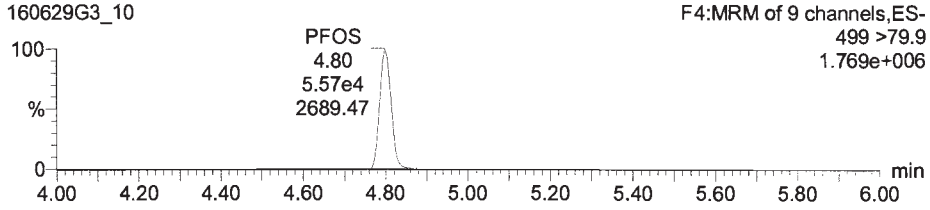


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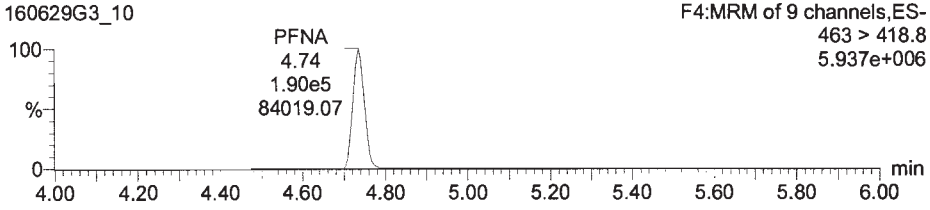
Last Altered: Thursday, June 30, 2016 08:28:36 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:29:01 Pacific Daylight Time

Name: 160629G3_10, Date: 30-Jun-2016, Time: 02:05:50, ID: ST160629G9-3 PFC CS6 16F2213, Description: PFC CS6 16F2213 A

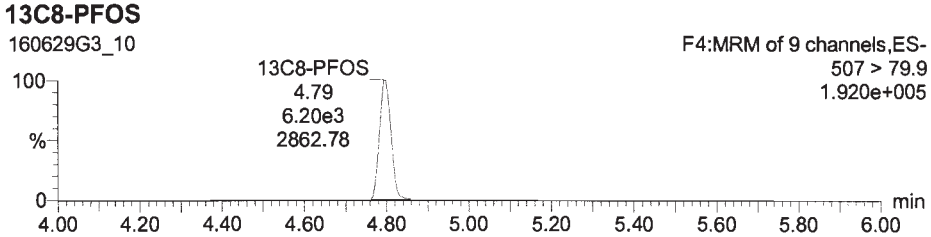
PFOS



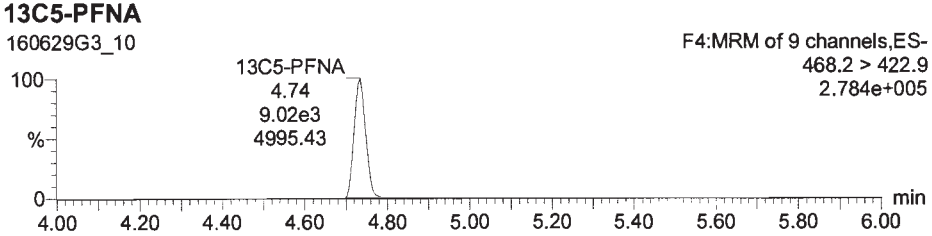
PFNA



13C8-PFOS



13C5-PFNA

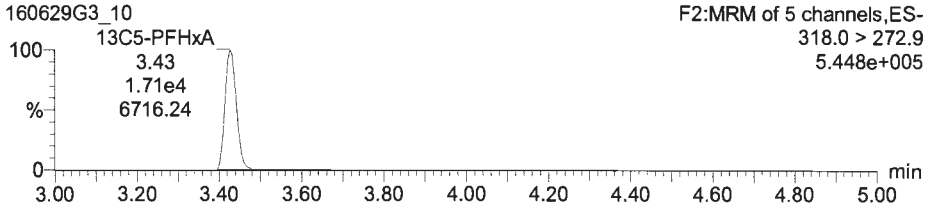


Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_CRV.qld

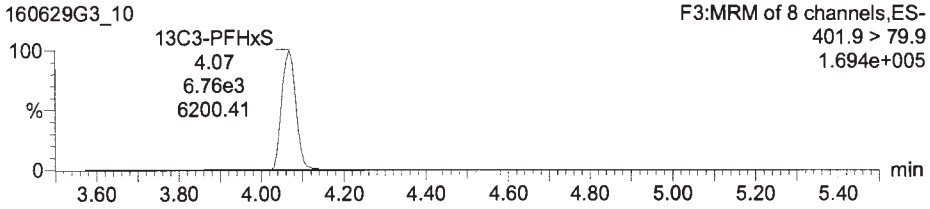
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Printed: Thursday, June 30, 2016 08:29:01 Pacific Daylight Time

Name: 160629G3_10, Date: 30-Jun-2016, Time: 02:05:50, ID: ST160629G9-3 PFC CS6 16F2213, Description: PFC CS6 16F2213 A

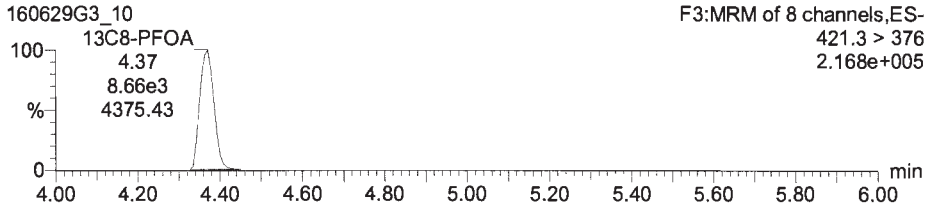
13C5-PFHxA



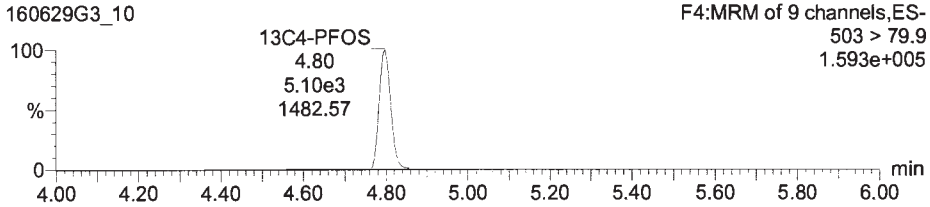
13C3-PFHxS



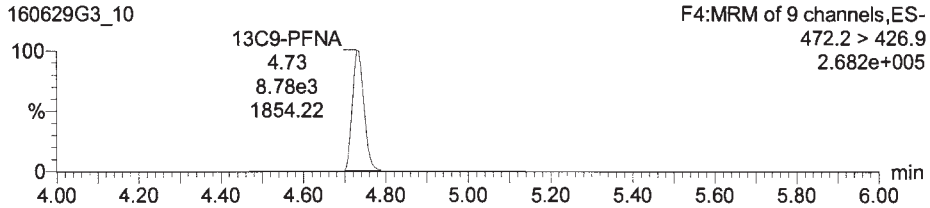
13C8-PFOA



13C4-PFOS



13C9-PFNA



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_12.qld

Last Altered: Thursday, June 30, 2016 08:33:44 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:34:19 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Name: 160629G3_12, Date: 30-Jun-2016, Time: 02:31:15, ID: SS160629G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

	#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.02e4	6.11e3		1.000	3.08	26.8	107.2
2	2	PFHpA	363 > 318.9	5.81e4	1.98e4		1.000	3.95	27.1	108.3
3	3	PFHxS	398.9 > 79.6	1.57e4	5.91e3		1.000	4.07	22.9	~~91.5~~
4	4	PFOA	413 > 368.7	3.35e4	2.79e4		1.000	4.37	18.7	~~74.6~~
5	5	PFOS	499 >79.9	5.60e3	7.41e3		1.000	4.80	15.0	~~60.0~~
6	6	PFNA	463 > 418.8	2.97e4	1.09e4		1.000	4.74	25.0	99.8
7	7	13C3-PFBS	302.0 > 98.8	6.11e3	2.54e4	0.241	1.000	3.08	12.5	99.8
8	8	13C4-PFHpA	367.2 > 321.8	1.98e4	2.54e4	0.744	1.000	3.95	13.1	105.0
9	9	18O2-PFHxS	403 > 102.6	5.91e3	9.55e3	0.572	1.000	4.07	13.5	108.1
10	10	13C2-PFOA	414.9 > 369.7	2.79e4	1.21e4	2.230	1.000	4.37	12.9	103.1
11	11	13C8-PFOS	507 > 79.9	7.41e3	6.07e3	1.108	1.000	4.80	13.8	110.2
12	12	13C5-PFNA	468.2 > 422.9	1.09e4	1.03e4	1.014	1.000	4.74	13.1	105.0
13	13	13C5-PFHxA	318.0 > 272.9	2.54e4	2.54e4	1.000	1.000	3.43	12.5	100.0
14	14	13C3-PFHxS	401.9 > 79.9	9.55e3	9.55e3	1.000	1.000	4.07	12.5	100.0
15	15	13C8-PFOA	421.3 > 376	1.21e4	1.21e4	1.000	1.000	4.37	12.5	100.0
16	16	13C4-PFOS	503 > 79.9	6.07e3	6.07e3	1.000	1.000	4.80	12.5	100.0
17	17	13C9-PFNA	472.2 > 426.9	1.03e4	1.03e4	1.000	1.000	4.74	12.5	100.0
18	18	Total PFBS	299 > 79.7		6.11e3		1.000		26.8	
19	19	Total PFHxS	398.9 > 79.6		5.91e3		1.000		28.9	
20	20	Total PFOA	413 > 368.7		2.79e4		1.000		22.7	
21	21	Total PFOS	499 > 79.9		7.41e3		1.000		26.3	

lim
75-125
112.8% (A)
94.4%
87.8%

(A) Branched and technical mix used. % recovery based off linear isomer BR 6/30/16

PW 6/30/16

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2016\160629G3\160629G3_12.qld

Last Altered: Thursday, June 30, 2016 08:33:44 Pacific Daylight Time
Printed: Thursday, June 30, 2016 08:34:19 Pacific Daylight Time

Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Name: 160629G3_12, Date: 30-Jun-2016, Time: 02:31:15, ID: SS160629G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

Total PFBS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	1	PFBS	299 > 79.7	3.08	2.02e4	6.11e3	26.8

Total PFHxS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	19	Total PFHxS	398.9 > 79.6	3.96	4.06e3	5.91e3	5.98
2	3	PFHxS	398.9 > 79.6	4.07	1.57e4	5.91e3	22.9

Total PFOA

	#	Name	Trace	RT	Area	IS Area	Conc.
1	20	Total PFOA	413 > 368.7	4.13	1.18e2	2.79e4	0.0657
2	20	Total PFOA	413 > 368.7	4.27	7.17e3	2.79e4	3.99
3	4	PFOA	413 > 368.7	4.37	3.35e4	2.79e4	18.7

Total PFOS

	#	Name	Trace	RT	Area	IS Area	Conc.
1	21	Total PFOS	499 >79.9	4.57	1.95e2	7.41e3	0.518
2	21	Total PFOS	499 >79.9	4.67	2.73e3	7.41e3	7.28
3	21	Total PFOS	499 >79.9	4.70	1.32e3	7.41e3	3.51
4	5	PFOS	499 >79.9	4.80	5.60e3	7.41e3	15.0

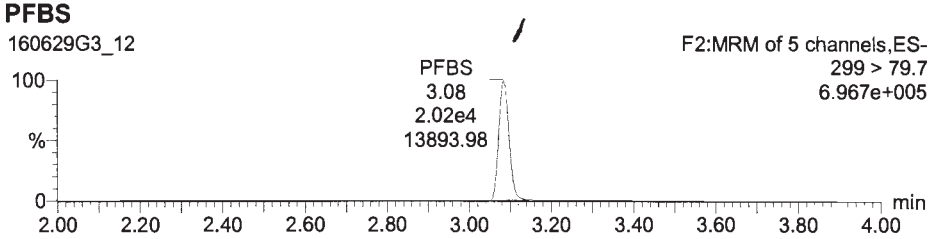
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Printed: Thursday, June 30, 2016 08:32:31 Pacific Daylight Time

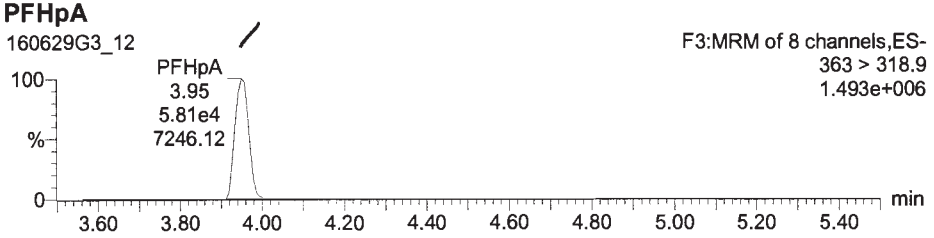
Method: U:\G1.PRO\MethDB\PFAS_LIST6_3.mdb 27 Jun 2016 09:13:58
Calibration: U:\G1.PRO\CurveDB\C18_VAL-PFC_Q1_06-29-16_L6.cdb 30 Jun 2016 08:28:36

Name: 160629G3_12, Date: 30-Jun-2016, Time: 02:31:15, ID: SS160629G3-1 PFC SSS 16F2214, Description: PFC SSS 16F2214 A

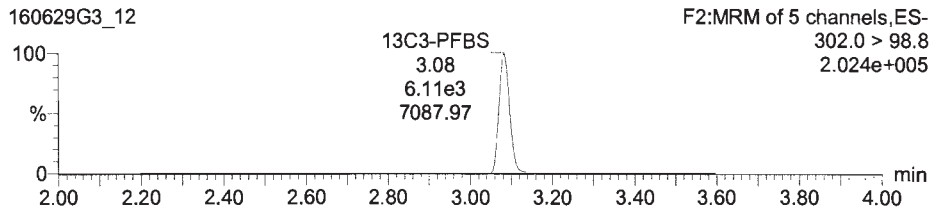
PFBS



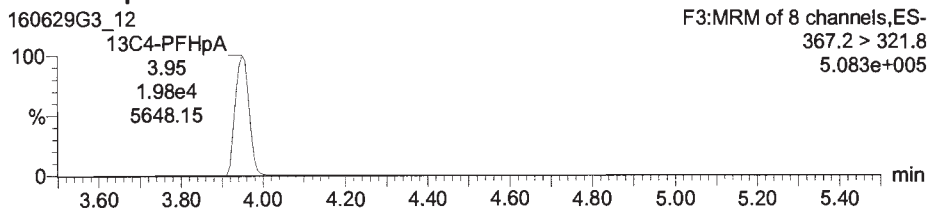
PFHpA



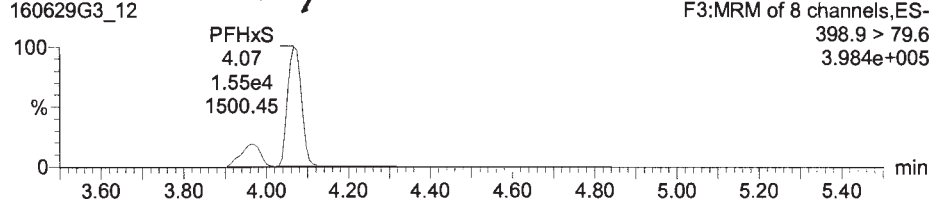
13C3-PFBS



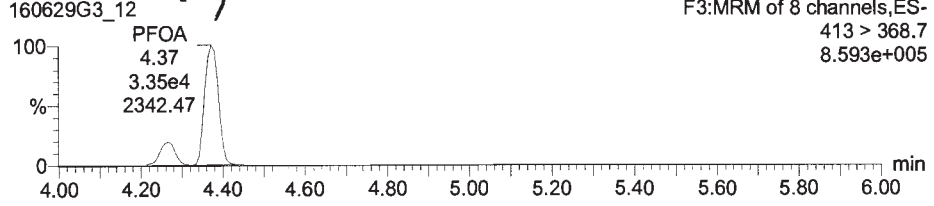
13C4-PFHpA



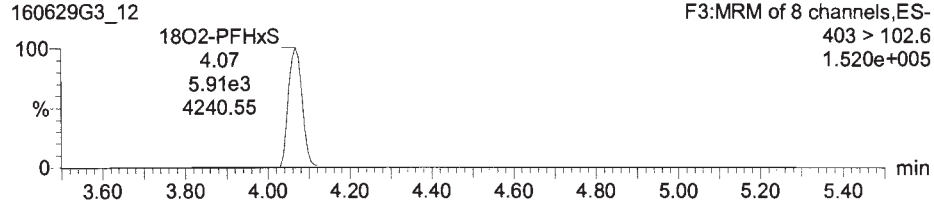
PFHxS



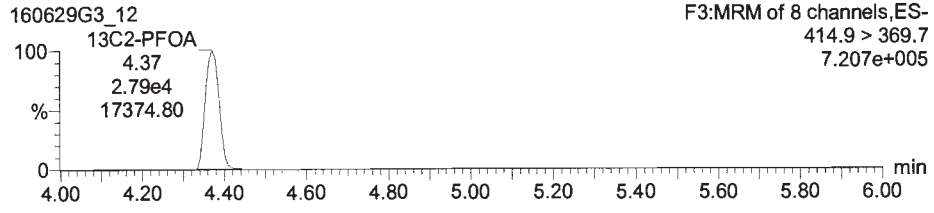
PFOA



18O2-PFHxS



13C2-PFOA

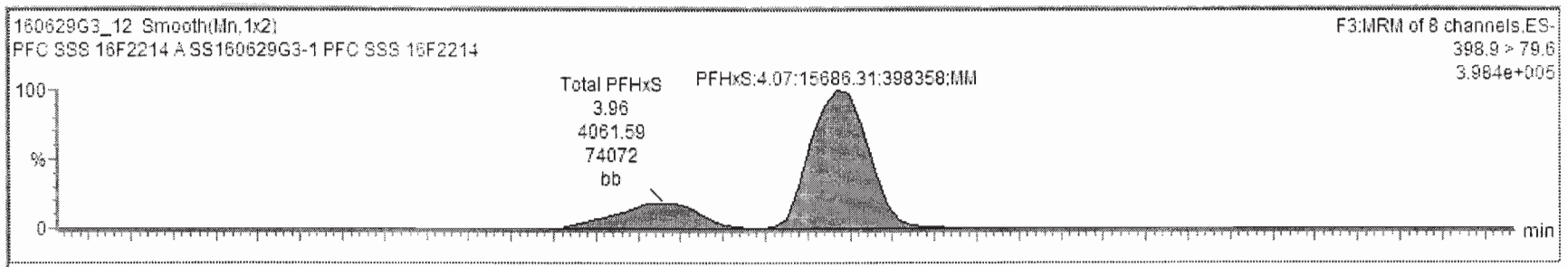


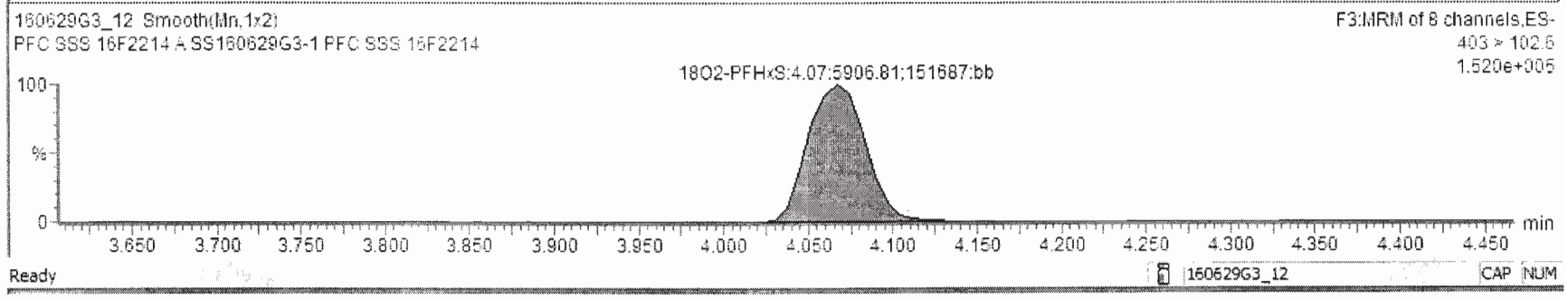
TargetLynx - 160629G3_12.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160629G3_12 - SS160629G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

	Name	Trace	Area	RRF	Wt/Vol	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	6.11e3	0.241	1.000	3.10	3.08	12.5	NO	99.8	0.0042180
8	13C4-PFHpA	367.2 > 321.8	1.98e4	0.744	1.000	3.96	3.95	13.1	NO	105.0	0.0043087
9	18O2-PFHxS	403 > 102.6	5.91e3	0.572	1.000	4.08	4.07	13.5	NO	108.1	0.0079767
10	13C2-PFOA	414.9 > 369.7	2.79e4	2.23	1.000	4.37	4.37	12.9	NO	103.1	0.0018692
11	13C8-PFOS	507 > 79.9	7.30e3	1.11	1.000	4.80	4.80	13.6	NO	108.4	0.0211088
12	13C5-PFNA	468.2 > 422.9	1.09e4	1.01	1.000	4.74	4.74	13.1	NO	105.0	0.0077663
13	13C5-PFHxA	318.0 > 272.9	2.54e4	1.00	1.000	3.53	3.43	12.5	NO	100.0	0.0032120
14	13C3-PFHxS	401.9 > 79.9	9.55e3	1.00	1.000	4.20	4.07	12.5	NO	100.0	0.0063330
15	13C8-PFOA	421.3 > 376	1.21e4	1.00	1.000	4.49	4.37	12.5	NO	100.0	0.0052029
16	13C4-PFOS	503 > 79.9	6.07e3	1.00	1.000	4.80	4.80	12.5	NO	100.0	0.0159153
17	13C9-PFNA	472.2 > 426.9	1.03e4	1.00	1.000	4.83	4.74	12.5	NO	100.0	0.0155909
18	Total PFBS	299 > 79.7	2.02e4		1.000	3.21		26.8	NO		
19	Total PFHxS	398.9 > 79.6	1.97e4		1.000	4.24		28.9	NO		
20	Total PFOA	413 > 368.7	4.08e4		1.000	4.54		22.7	NO		
21	Total PFOS	499 > 79.9	9.72e3		1.000	4.93		26.4	NO		



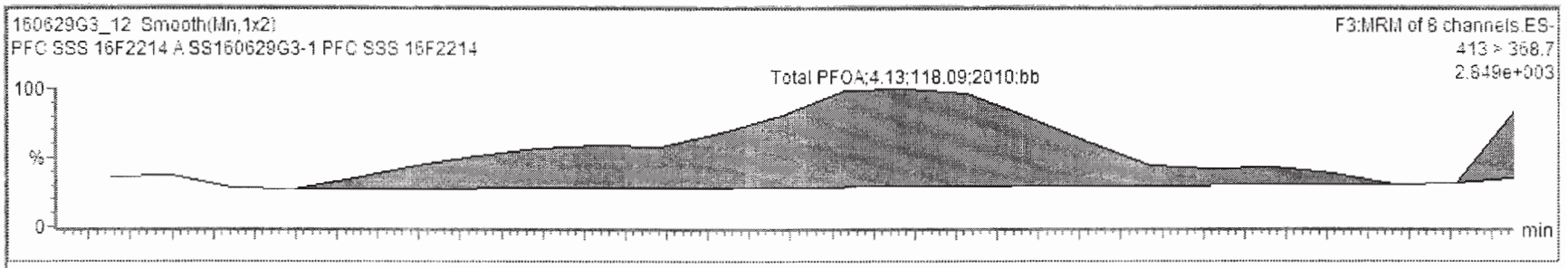


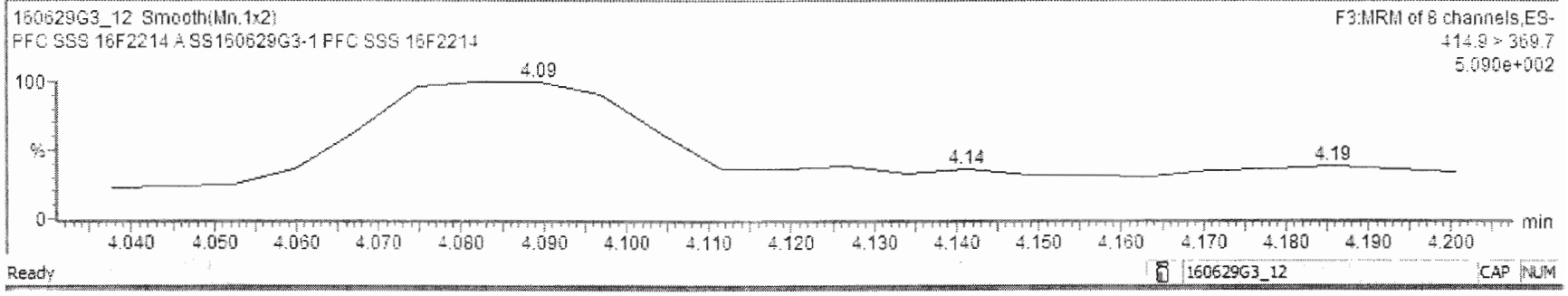
TargetLynx - 160629G3_12.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160629G3_12 - SS160629G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	6.11e3	0.241	1.000	3.10	3.08	12.5	NO	99.8	0.0042160
8	13C4-PFHpA	367.2 > 321.8	1.88e4	0.744	1.000	3.96	3.95	13.1	NO	105.0	0.0043067
9	18O2-PFHxS	403 > 102.6	5.91e3	0.572	1.000	4.08	4.07	13.5	NO	108.1	0.0079767
10	13C2-PFOA	414.9 > 369.7	2.79e4	2.23	1.000	4.37	4.37	12.9	NO	103.1	0.0018692
11	13C8-PFOS	507 > 79.9	7.30e3	1.11	1.000	4.80	4.80	13.6	NO	108.4	0.0211088
12	13C5-PFNA	468.2 > 422.9	1.09e4	1.01	1.000	4.74	4.74	13.1	NO	105.0	0.0077663
13	13C5-PFHxA	318.0 > 272.9	2.54e4	1.00	1.000	3.53	3.43	12.5	NO	100.0	0.0032120
14	13C3-PFHxS	401.9 > 79.9	9.55e3	1.00	1.000	4.20	4.07	12.5	NO	100.0	0.0063330
15	13C8-PFOA	421.3 > 376	1.21e4	1.00	1.000	4.49	4.37	12.5	NO	100.0	0.0052029
16	13C4-PFOS	503 > 79.9	6.07e3	1.00	1.000	4.80	4.80	12.5	NO	100.0	0.0159153
17	13C9-PFNA	472.2 > 426.9	1.03e4	1.00	1.000	4.83	4.74	12.5	NO	100.0	0.0155909
18	Total PFBS	299 > 79.7	2.02e4		1.000	3.21		26.8	NO		
19	Total PFHxS	398.9 > 79.6	1.97e4		1.000	4.24		26.9	NO		
20	Total PFOA	413 > 368.7	4.08e4		1.000	4.54		22.7	NO		
21	Total PFOS	499 > 79.9	9.72e3		1.000	4.93		26.4	NO		





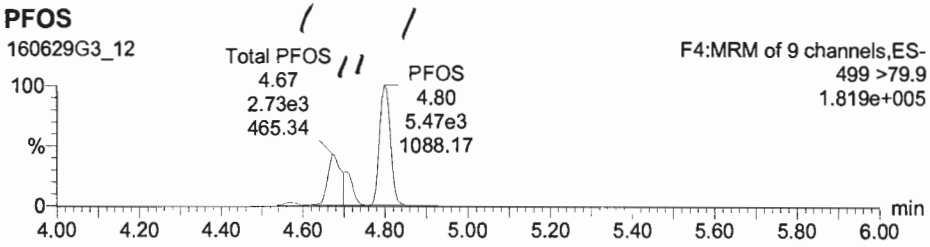
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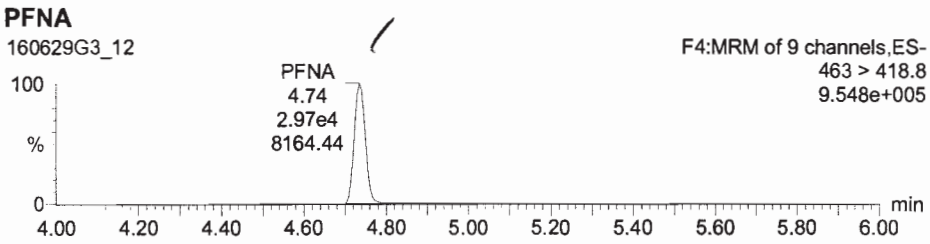
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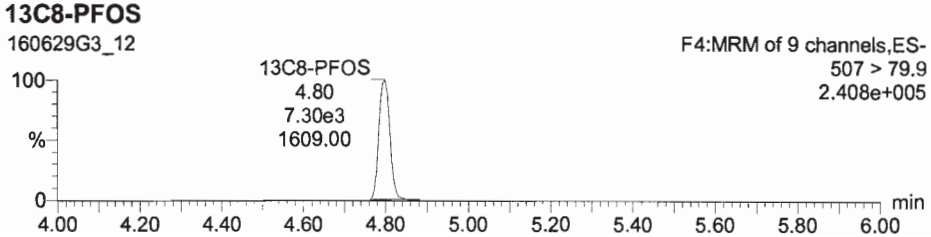
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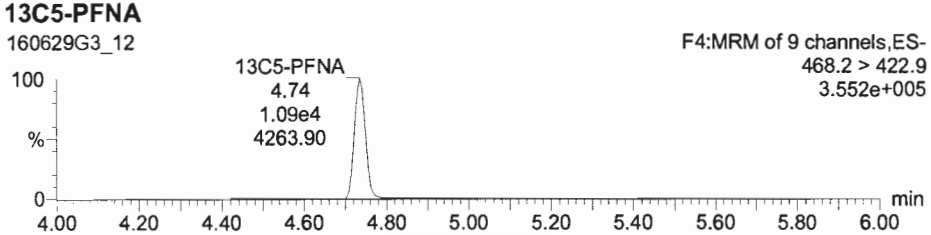
PFNA



13C8-PFOS



13C5-PFNA

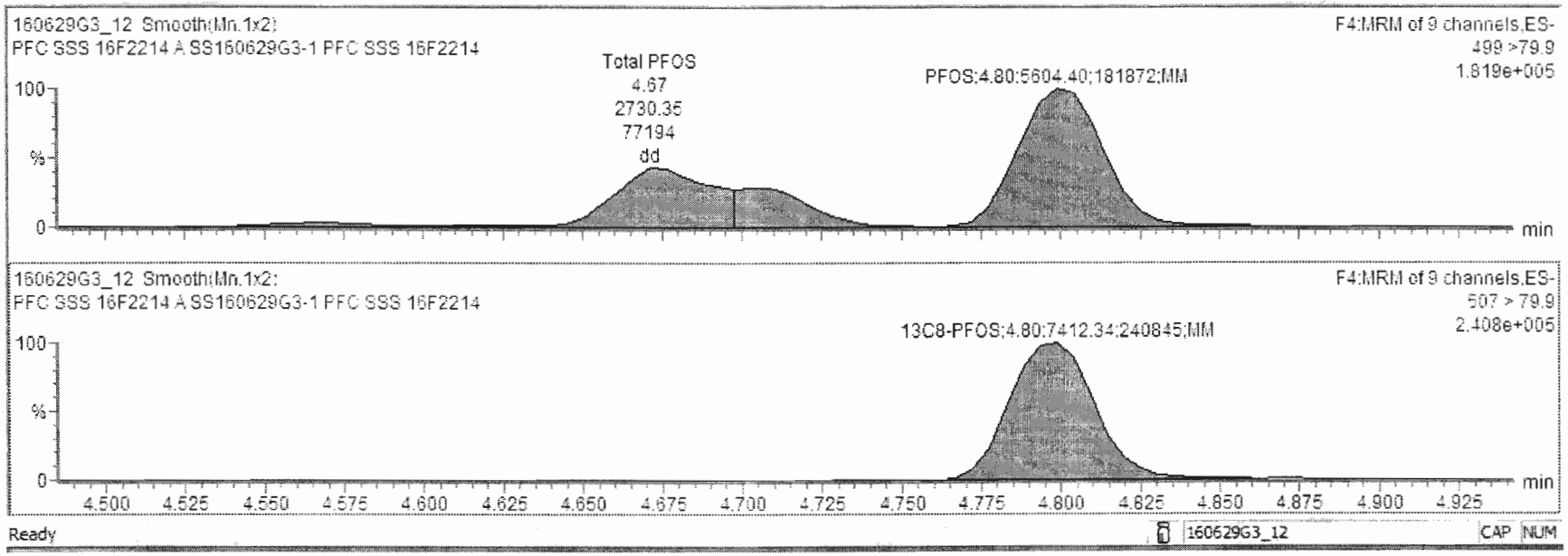


TargetLynx - 160629G3_12.qld * - [Chromatogram]

File Edit View Display Processing Window Help

160629G3_12 - SS160629G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	6.11e3	0.241	1.000	3.10	3.08	12.5	NO	99.8	0.0042160
8	13C4-PFHpA	367.2 > 321.8	1.88e4	0.744	1.000	3.96	3.95	13.1	NO	105.0	0.0043087
9	18O2-PFHxS	403 > 102.6	5.91e3	0.572	1.000	4.08	4.07	13.5	NO	108.1	0.0079767
10	13C2-PFOA	414.9 > 369.7	2.79e4	2.23	1.000	4.37	4.37	12.9	NO	103.1	0.0015692
11	13C8-PFOS	507 > 79.9	7.41e3	1.11	1.000	4.80	4.80	13.8	NO	110.2	0.0211088
12	13C5-PFNA	468.2 > 422.9	1.09e4	1.01	1.000	4.74	4.74	13.1	NO	105.0	0.0077663
13	13C5-PFHxA	318.0 > 272.9	2.54e4	1.00	1.000	3.53	3.43	12.5	NO	100.0	0.0032120
14	13C3-PFHxS	401.9 > 79.9	9.55e3	1.00	1.000	4.20	4.07	12.5	NO	100.0	0.0063330
15	13C8-PFOA	421.3 > 376	1.21e4	1.00	1.000	4.49	4.37	12.5	NO	100.0	0.0052029
16	13C4-PFOS	503 > 79.9	8.07e3	1.00	1.000	4.80	4.80	12.5	NO	100.0	0.0159153
17	13C9-PFNA	472.2 > 426.9	1.03e4	1.00	1.000	4.83	4.74	12.5	NO	100.0	0.0155909
18	Total PFBS	299 > 79.7	2.02e4		1.000	3.21		26.8	NO		
19	Total PFHxS	398.9 > 79.6	1.97e4		1.000	4.24		28.9	NO		
20	Total PFOA	413 > 368.7	4.08e4		1.000	4.54		22.7	NO		
21	Total PFOS	499 > 79.9	9.85e3		1.000	4.93		26.3	NO		

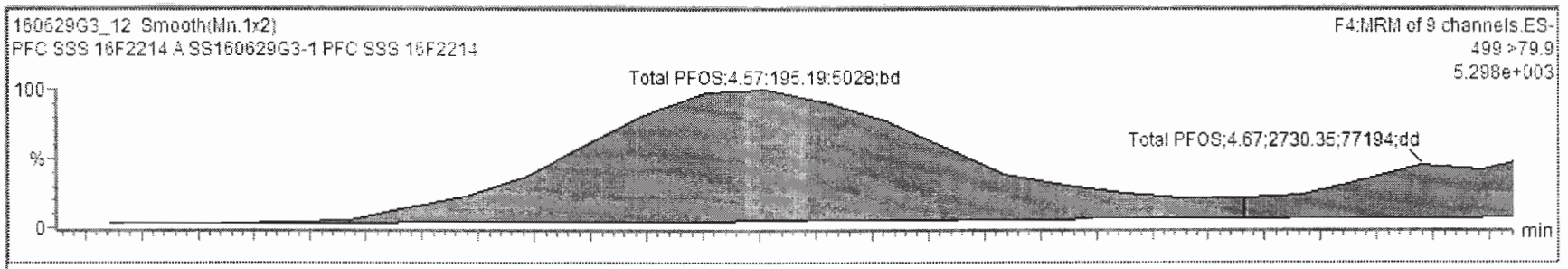


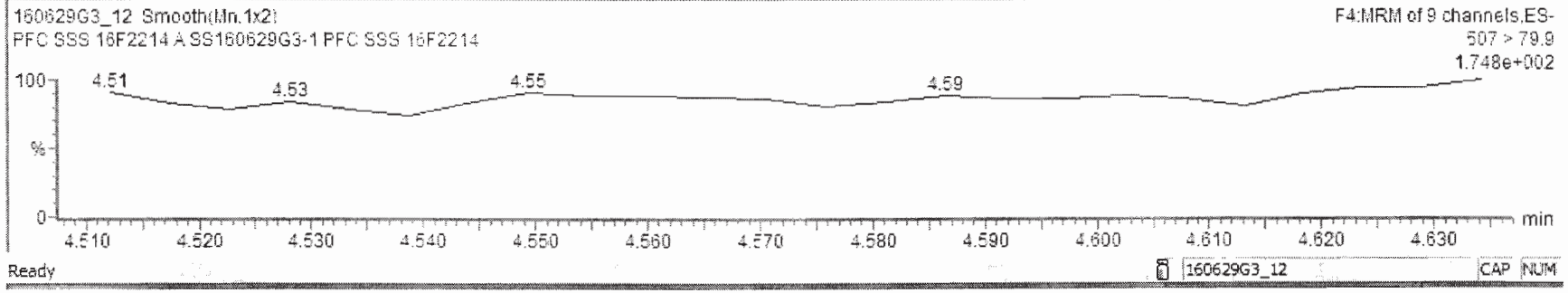
TargetLynx - 160629G3_12.qld * - [Chromatogram]

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160629G3_12 - SS160629G3-1 PFC SSS 16F2214 - PFC SSS 16F2214 A

	Name	Trace	Area	RRF	Wt/VoL	Pred.RT	RT	Conc.	>MDL	%Rec	DL
7	13C3-PFBS	302.0 > 98.8	6.11e3	0.241	1.000	3.10	3.08	12.5	NO	99.8	0.0042160
8	13C4-PFHpA	367.2 > 321.8	1.98e4	0.744	1.000	3.96	3.95	13.1	NO	105.0	0.0043087
9	18O2-PFHxS	403 > 102.6	5.91e3	0.572	1.000	4.08	4.07	13.5	NO	108.1	0.0079767
10	13C2-PFOA	414.9 > 369.7	2.79e4	2.23	1.000	4.37	4.37	12.9	NO	103.1	0.0018692
11	13C8-PFOS	507 > 79.9	7.41e3	1.11	1.000	4.80	4.80	13.8	NO	110.2	0.0211088
12	13C5-PFNA	468.2 > 422.9	1.09e4	1.01	1.000	4.74	4.74	13.1	NO	105.0	0.0077683
13	13C5-PFHxA	318.0 > 272.9	2.54e4	1.00	1.000	3.53	3.43	12.5	NO	100.0	0.0032120
14	13C3-PFHxS	401.9 > 79.9	9.55e3	1.00	1.000	4.20	4.07	12.5	NO	100.0	0.0063330
15	13C8-PFOA	421.3 > 376	1.21e4	1.00	1.000	4.49	4.37	12.5	NO	100.0	0.0052029
16	13C4-PFOS	503 > 79.9	6.07e3	1.00	1.000	4.80	4.80	12.5	NO	100.0	0.0159153
17	13C9-PFNA	472.2 > 426.9	1.03e4	1.00	1.000	4.83	4.74	12.5	NO	100.0	0.0155909
18	Total PFBS	299 > 79.7	2.02e4		1.000	3.21		26.8	NO		
19	Total PFHxS	398.9 > 79.6	1.97e4		1.000	4.24		26.9	NO		
20	Total PFOA	413 > 368.7	4.08e4		1.000	4.54		22.7	NO		
21	Total PFOS	499 > 79.9	9.85e3		1.000	4.93		26.3	NO		





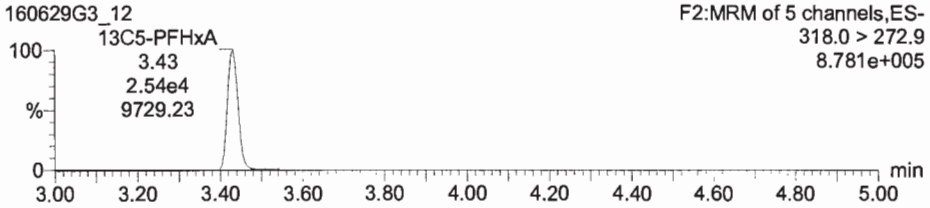
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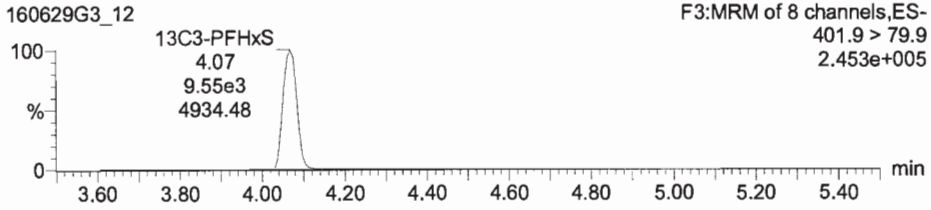
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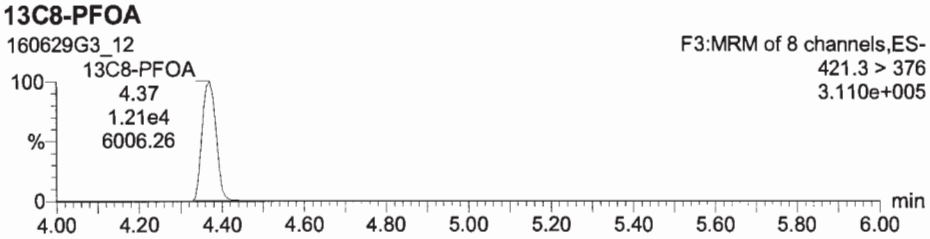
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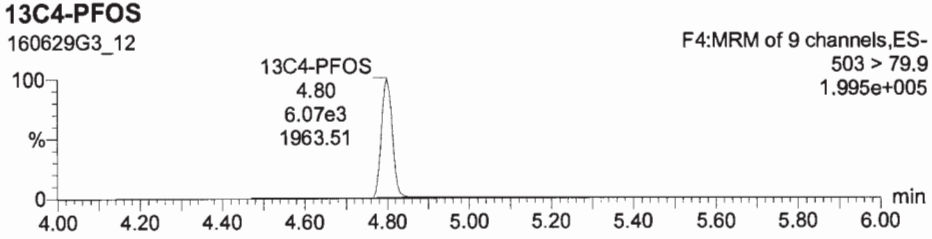
13C3-PFHxS



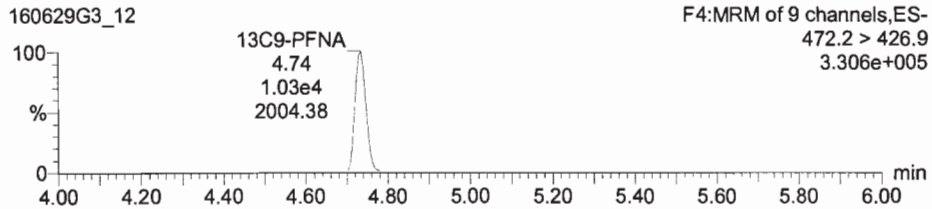
13C8-PFOA



13C4-PFOS



13C9-PFNA



Results

Common_ID	SU_CSU_Number	Phase	Validation_ID	Sample_Number	DAIS_Code	Lab_Code	Analysis_Group	Analytical_Method	FINS_Code	Lab_Code	Lab_Sample_ID	Leachate_Method	Sample_Basis	Extraction_Method	Batch_Type	Lab_QC_Type	Service_Medium	QC_Level	Date/Time_Collected	Delay_Reason	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Batch_ID	Solution	Rep_Number	Percent_Moisture	Percent_Lipid	Client_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Batch_Units	Lab_Qualifier	Validation_Qualifier	QC_Column_Type	Analyte's_Result_Type	Permit_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Data	QC_Narrative	MDL	Detection_Limit	QAPP_Version	DL	LOD	LOQ	EDD	Analysis_Area	Validator_Name	Val_Date
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160625	04:25:00	1608783-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	946		NG/L			PR	TRG								5.0	1.76	3.94	7.87	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160629	02:51:00	1608783-01	25	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	2090		NG/L			PR	TRG								5.0	11.6	78.7	157	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160629	02:51:00	1608783-01	25	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	9840		NG/L			PR	TRG								5.0	18.6	78.7	157	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160630	02:56:00	1608783-01	25	-999			Perfluorooctanoic acid (PFOA)	335-67-1	3650		NG/L			PR	TRG								5.0	12.6	78.7	157	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160630	02:56:00	1608783-01	25	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	49300		NG/L			PR	TRG								5.0	18.8	98.4	197	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160630	02:56:00	1608783-01	25	-999			Perfluorononanoic acid (PFNA)	375-95-1	2090		NG/L			PR	TRG								5.0	5.97	3.94	7.87	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160625	04:25:00	1608783-01	1	-999			13C3-PFBS		138		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
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WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160630	02:56:00	1608783-01	25	-999			13C4-PFOA		13C4-PFOA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160630	02:56:00	1608783-01	25	-999			13C8-PFOS		13C8-PFOS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160625	04:56:00	1608783-01	1	-999			13C9-PFNA		13C9-PFNA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160629	02:51:00	1608783-01	25	-999			1H,1H,2H,2H-Perfluorooctanesulfonic acid (FTS)	27619-97-2	1080		NG/L			PR	TRG								5.0	1.80	4.03	8.05	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-7-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 16:35	06/16/2016			20160624	07:39:00	20160629	02:51:00	1608783-01	25	-999			1H,1H,2H,2H-Perfluorooctanesulfonic acid (FTS)	27619-97-2	1080		NG/L			PR	TRG								5.0	1.80	4.03	8.05	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160624	04:38:00	1608783-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	321		NG/L			PR	TRG								5.0	1.80	4.03	8.05	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160624	04:38:00	1608783-02	28	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	5080		NG/L			PR	TRG								5.0	19.1	90.6	181	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160624	04:38:00	1608783-02	28	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1650		NG/L			PR	TRG								5.0	0.653	4.03	8.05	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160624	04:38:00	1608783-02	28	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	31000		NG/L			PR	TRG								5.0	16.2	90.6	181	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160625	04:38:00	1608783-02	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	88.2		NG/L			PR	TRG								5.0	0.815	4.03	8.05	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160625	04:38:00	1608783-02	1	-999			13C3-PFBS		13C3-PFBS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160629	02:56:00	1608783-02	25	-999			13C4-PFHpA		13C4-PFHpA		PCT_REC			PR	IS	SLSA	175	25						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160629	02:56:00	1608783-02	25	-999			13C8-PFOA		13C8-PFOA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-4-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 11:45	06/16/2016			20160624	07:39:00	20160625	04:38:00	1608783-02	1	-999			13C8-PFOS		13C8-PFOS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	1010		NG/L			PR	TRG								5.0	1.82	4.07	8.15	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	2470		NG/L			PR	TRG								5.0	9.60	40.7	81.5	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	10	-999			Perfluorooctanoic acid (PFOA)	335-67-1	963		NG/L			PR	TRG								5.0	0.662	4.07	8.15	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	10	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	2470		NG/L			PR	TRG								5.0	9.60	40.7	81.5	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	270		NG/L			PR	TRG								5.0	0.863	4.07	8.15	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	10	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1280		NG/L			PR	TRG								5.0	0.87	4.07	8.15	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	270		NG/L			PR	TRG								5.0	0.823	4.07	8.15	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			13C3-PFBS		13C3-PFBS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160629	03:44:00	1608783-03	10	-999			13C4-PFHpA		13C4-PFHpA		PCT_REC			PR	IS	SLSA	175	25						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160629	03:44:00	1608783-03	10	-999			13C8-PFOA		13C8-PFOA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			13C8-PFOS		13C8-PFOS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-6-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:45	06/16/2016			20160624	07:39:00	20160625	04:50:00	1608783-03	1	-999			13C9-PFNA		13C9-PFNA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160629	04:09:00	1608783-05	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	215		NG/L			PR	TRG								5.0	1.77	3.97	7.92	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	455		NG/L			PR	TRG								5.0	0.595	3.97	7.92	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1460		NG/L			PR	TRG								5.0	0.663	3.97	7.92	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160629	03:57:00	1608783-04	10	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	14800		NG/L			PR	TRG								5.0	7.96	39.7	79.2	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	317		NG/L			PR	TRG								5.0	0.802	3.97	7.92	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			13C3-PFBS		13C3-PFBS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			13C4-PFHpA		13C4-PFHpA		PCT_REC			PR	IS	SLSA	175	25						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			13C8-PFOA		13C8-PFOA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			13C8-PFOS		13C8-PFOS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:05	06/16/2016			20160624	07:39:00	20160625	05:03:00	1608783-04	1	-999			13C9-PFNA		13C9-PFNA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	397		NG/L			PR	TRG								5.0	1.99	4.42	8.88	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	265		NG/L			PR	TRG								5.0	0.658	4.42	8.88	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	10	-999			Perfluorooctanoic acid (PFOA)	335-67-1	8380		NG/L			PR	TRG								5.0	10.5	44.2	88.8	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	10	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	18900		NG/L			PR	TRG								5.0	8.96	44.2	88.8	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	52.7		NG/L			PR	TRG								5.0	0.889	4.42	8.88	1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			13C3-PFBS		13C3-PFBS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			13C4-PFHpA		13C4-PFHpA		PCT_REC			PR	IS	SLSA	175	25						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			13C8-PFOA		13C8-PFOA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			13C8-PFOS		13C8-PFOS		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OFPCL-MAY-3P-06:16	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/17/2016 12:10	06/16/2016			20160624	07:39:00	20160629	04:21:00	1608783-06	1	-999			13C9-PFNA		13C9-PFNA		PCT_REC			PR	IS	SLSA	150	60						5.0				1650783.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OF-EBG0216	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/20/2016 15:45	06/22/2016			20160624	08:03:00	20160628	20:49:00	1608818-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.94	U	NG/L	U		PR	TRG								5.0	1.76	3.94	7.87	1650818.SEP2083		
WQAP51082000.WEE1				OCEANA_NAS	OF-EBG0216	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/20/2016 15:45	06/22/2016			20160624	08:03:00	20160628	20:49:00	1608818-06	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4

Results

Compare_ID	EU_CSV_Number	Phase	Validation_ID	Sample_Name	CHAR_Code	Lab_Code	Analysis_Group	Analytical_Method	FRAC_Code	Lab_Code	Lab_Description	Leachate_Method	Leachate_Basis	Extraction_Method	Batch_Type	Lab_QC_Type	Service_Medium	QC_Level	Date/Time_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Batch_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analyte's_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Data	QC_Narrative	MDL	Detection_Limit	QAR_Version	DL	LOD	LOQ	Analysis_Area	Validator_Name	Val_Date
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	21.7		NG_L			PR	TRG								5.0	1.86	4.13	8.35	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluorohexanoic acid (PFHxA)	307-24-4	20.0		NG_L			PR	TRG								5.0	0.613	4.13	8.35	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	305		NG_L			PR	TRG								5.0	0.982	4.13	8.35	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	298		NG_L			PR	TRG								5.0	0.679	4.13	8.35	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	245		NG_L			PR	TRG								5.0	0.837	4.13	8.30	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1040	J	NG_L			PR	TRG								5.0	0.840	4.13	8.30	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			1SCI-PFBS	375-73-5	104		PCT_REC			PR	IS		SLSA	150	65										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			13C4-PFHpA	13C4-PFHpA	93.6		PCT_REC			PR	IS		SLSA	175	25										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			18O2-PFHxS	18O2-PFHxS	103		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			13C2-PFOA	13C2-PFOA	84.6		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			13C8-PFOS	13C8-PFOS	96.4		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 13:00	06/22/2016			20160628	08:03:00	20160628	21:26:00	160818-09	1	-999			13C4-PFBS	13C4-PFBS	96.4		PCT_REC			PR	IS		SLSA	150	50										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.97		NG_L	U		PR	TRG								5.0	1.82	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	4.97		NG_L	U		PR	TRG								5.0	0.661	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	4.97		NG_L	U		PR	TRG								5.0	0.983	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	3.719	J	NG_L	J		PR	TRG								5.0	0.662	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	4.97	U	NG_L	U		PR	TRG								5.0	0.820	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	4.97	U	NG_L	U		PR	TRG								5.0	0.823	4.07	8.13	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			1SCI-PFBS	375-73-5	98.3		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			13C4-PFHpA	13C4-PFHpA	94.4		PCT_REC			PR	IS		SLSA	175	25										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			13C2-PFOA	13C2-PFOA	91.3		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			13C8-PFOS	13C8-PFOS	96.2		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-14-NWSB2-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/29/2016 15:15	06/22/2016			20160628	08:03:00	20160628	21:38:00	160818-10	1	-999			13C4-PFBS	13C4-PFBS	74.6		PCT_REC			PR	IS		SLSA	150	50										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	5.46		NG_L	J		PR	TRG								5.0	1.82	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	2.97	J	NG_L	J		PR	TRG								5.0	0.662	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	45.9		NG_L			PR	TRG								5.0	0.983	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	29.5		NG_L			PR	TRG								5.0	0.823	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	33.2		NG_L			PR	TRG								5.0	0.822	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	2.97	J	NG_L	J		PR	TRG								5.0	0.828	4.07	8.15	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			1SCI-PFBS	375-73-5	103		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			13C4-PFHpA	13C4-PFHpA	97.3		PCT_REC			PR	IS		SLSA	175	25										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			18O2-PFHxS	18O2-PFHxS	100		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			13C2-PFOA	13C2-PFOA	96.1		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			13C8-PFOS	13C8-PFOS	93.0		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 11:05	06/22/2016			20160628	08:03:00	20160628	22:27:00	160818-11	1	-999			13C4-PFBS	13C4-PFBS	70.7		PCT_REC			PR	IS		SLSA	150	50										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	2.27		NG_L	J		PR	TRG								5.0	1.74	3.88	7.76	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	3.88	U	NG_L	U		PR	TRG								5.0	0.573	3.88	7.76	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	3.88	U	NG_L	U		PR	TRG								5.0	0.919	3.88	7.76	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	32.1		NG_L			PR	TRG								5.0	0.763	3.88	7.76	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	3.88	U	NG_L	U		PR	TRG								5.0	0.798	3.88	7.76	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			1SCI-PFBS	375-73-5	107		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			13C4-PFHpA	13C4-PFHpA	96.6		PCT_REC			PR	IS		SLSA	175	25										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			18O2-PFHxS	18O2-PFHxS	99.9		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			13C2-PFOA	13C2-PFOA	96.2		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			13C8-PFOS	13C8-PFOS	89.1		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW17-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 13:25	06/22/2016			20160628	08:03:00	20160628	22:39:00	160818-12	1	-999			13C4-PFBS	13C4-PFBS	68.1		PCT_REC			PR	IS		SLSA	150	50										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/22/2016 08:55	06/23/2016			20160628	08:05:00	20160629	22:51:00	160818-13	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	95.1		NG_L			PR	TRG								5.0	1.79	4.00	8.00	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/22/2016 08:55	06/23/2016			20160628	08:05:00	20160629	22:51:00	160818-13	1	-999			Perfluoroheptanesulfonic acid (PFHpS)	375-85-9	40.9		NG_L			PR	TRG								5.0	0.561	4.00	8.00	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/22/2016 08:55	06/23/2016			20160628	08:05:00	20160629	22:51:00	160818-13	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	1040		NG_L			PR	TRG								5.0	0.947	4.00	8.00	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/22/2016 08:55	06/23/2016			20160628	08:05:00	20160629	22:51:00	160818-13	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	59.5		NG_L			PR	TRG								5.0	0.651	4.00	8.00	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	16:43:00	160818-13	5	-999			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	4230		NG_L			PR	TRG								5.0	4.03	20.0	40.0	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	DL1	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1040		NG_L			PR	TRG								5.0	0.819	4.00	8.00	160818.SEP.0005		
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			1SCI-PFBS	375-73-5	99.4		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			13C4-PFHpA	13C4-PFHpA	98.2		PCT_REC			PR	IS		SLSA	175	25										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			18O2-PFHxS	18O2-PFHxS	116		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			13C2-PFOA	13C2-PFOA	104		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			13C8-PFOS	13C8-PFOS	92.0		PCT_REC			PR	IS		SLSA	150	60										
WQAP2016Q3000.WEG1			OCEANA_NAS	OF-MW18-0816	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	06/21/2016 14:15	06/23/2016			20160628	08:03:00	20160629	22:51:00	160818-13	1	-999			13C4-PFBS	13C4-PFBS	52.0		PCT_REC			PR	IS		SLSA

Results

| Sample_ID | SU_CSU_Number | Phase | Validation_ID | Sample_Name | CHAR_Code | Analysis_Group | Analytical_Method | FSG_Code | Lab_Code | Lab_Name | QC_Level | Sample_Matrix | Leachate_Method | Sample_Basis | Extraction_Method | Block_Type | Lab_QC_Type | Sample_Medium | QC_Level | Date/Time_Collected | Date_Received | Leachate_Date | Leachate_Time | Extraction_Date | Extraction_Time | Analysis_Date | Analysis_Time | Lab_Sample_ID | Dilution | Run_Number | Percent_Moisture | Percent_Lipid | Chem_Name | Analyte_ID | Analyte_Value | Original_Analyte_Value | Basis_Units | Lab_Qualifier | Validator_Qualifier | QC_Column_Type | Analysis_Result_Type | Result_Narrative | QC_Control_Limit_Code | QC_Accuracy_Upper | QC_Accuracy_Lower | Control_Limit_Data | QC_Narrative | MDL | Detection_Limit | QAPA_Version | RL | LOD | EDD | Analysis_Batch | Validator_Name | Val_Date |
|---|---|---

Common_ID	SU_CSS_Number	Phase	Institution_ID	Sample_Name	CWMI_Code	Analysis_Group	Analytical_Method	FSG_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Batch_Type	Lab_QC_Type	Service_Medium	QC_Level	Date/Time_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Basis_Units	Lab_Qualifier	Validation_Qualifier	QC_Column_Type	Analyte's_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QAA_Version	RL	LOD	LOQ	EDD	Analyte_Rank	Validator_Name	Val_Date
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			Perfluorheptanoic acid (PFHpA)	375-85-9	4.97		NG_L	J		TRG											5.0	5.589	4.07	8.11	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	5.85		NG_L	J		TRG											5.0	6.960	4.07	8.11	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	0.858		NG_L	J		TRG											5.0	0.880	4.07	8.11	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	8.15		NG_L	J		TRG											5.0	8.618	4.07	8.11	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	4.07		NG_L	U		TRG											5.0	5.821	4.07	8.11	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			13C3-PFBS	1	113		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			13C4-PFHpA	103		PCT_REC			IS		SLSA	175	25									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			18O2-PFHxS	115		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			13C4-PFOA	101		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW34-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 13:30	07/15/2016			20160718	09:06:00	20160718	19:45:00	1603993-08	1	-999			13C5-PFNA	106		PCT_REC			IS		SLSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	4.59		NG_L	U		TRG											5.0	2.02	4.50	9.04	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	3.93		NG_L	J		TRG											5.0	0.858	4.50	9.04	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	4.54		NG_L	J		TRG											5.0	0.728	4.50	9.04	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	56.3		NG_L			TRG											5.0	5.912	4.50	9.04	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	2.42		NG_L	J		TRG											5.0	0.913	4.50	9.04	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			13C3-PFBS	121		PCT_REC			IS		SLSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			18O2-PFHxS	117		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			13C2-PFOA	92.8		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			13C8-PFOS	113		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	OF-MW33-0716	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/14/2016 15:40	07/15/2016			20160718	09:06:00	20160718	19:57:00	1603993-09	1	-999			13C5-PFNA	110		PCT_REC			IS		SLSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	4.00		NG_L	U		TRG											5.0	1.79	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	4.00		NG_L	U		TRG											5.0	0.947	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	4.00		NG_L	U		TRG											5.0	0.851	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	4.00		NG_L	U		TRG											5.0	0.807	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	4.00		NG_L	U		TRG											5.0	0.819	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			13C3-PFBS	117		PCT_REC			IS		SLSA	150	65									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			13C4-PFHpA	105		PCT_REC			IS		SLSA	175	25									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			18O2-PFHxS	104		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			13C2-PFOA	103		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			13C8-PFOS	108		PCT_REC			IS		SLSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	18:07:00	B6G0068-BLK1	1	-999			13C5-PFNA	106		PCT_REC			IS		SLSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	79.7		NG_L			TRG											5.0	1.79	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	79.3		NG_L			TRG											5.0	0.947	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	86.7		NG_L			TRG											5.0	0.947	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	84.9		NG_L			TRG											5.0	0.807	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	78.6		NG_L			TRG											5.0	0.810	4.00	8.00	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C3-PFBS	113		PCT_REC			IS		LSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C4-PFHpA	108		PCT_REC			IS		LSA	175	25									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C2-PFHxS	109		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C4-PFOA	109		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C8-PFOS	103		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	17:43:00	B6G0068-BS1	1	-999			13C5-PFNA	102		PCT_REC			IS		LSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	397		NG_L			TRG											5.0	1.87	4.20	8.38	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	387		NG_L			TRG											5.0	0.947	4.20	8.38	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	319		NG_L			TRG											5.0	0.947	42.0	83.8	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	861		NG_L			TRG											5.0	0.882	4.20	8.38	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	3080		NG_L			TRG											5.0	5.845	4.20	8.38	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1	194		NG_L			TRG											5.0	0.848	4.20	8.38	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			13C3-PFBS	112		PCT_REC			IS		LSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			13C4-PFHpA	112		PCT_REC			IS		LSA	175	25									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			18O2-PFHxS	114		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			13C2-PFOA	114		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			13C8-PFOS	107		PCT_REC			IS		LSA	150	60									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:10:00	B6G0068-MS1	1	-999			13C5-PFNA	111		PCT_REC			IS		LSA	150	50									1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:58:00	B6G0068-MSD1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5	373		NG_L			TRG											5.0	1.90	4.24	8.49	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:58:00	B6G0068-MSD1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9	431		NG_L			TRG											5.0	0.827	4.24	8.49	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:58:00	B6G0068-MSD1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4	5270		NG_L			TRG											5.0	0.1	42.4	84.9	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:58:00	B6G0068-MSD1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1	1020		NG_L			TRG											5.0	0.851	4.24	8.49	1603993	SEG2030		
WQAP01082000.WE01				OCEANA_NAS	Manta Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2016 09:06	07/18/2016			20160718	09:06:00	20160718	20:58:00	B6G0068-MSD1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1	3660		NG_L			TRG											5.0	0.807

Data Validation Summary

Oceana CTO-WE44, NALF Fentress

TO: Tiffany Hill/CVO

Anita Dodson/VBO

FROM: Tiffany McGlynn/GNV

CC: Herb Kelly/GNV

DATE: September 9, 2016

Introduction

The following data validation report discusses the data validation process and findings for Vista Analytical in the Sample Delivery Groups (SDGs) listed in the table below.

Samples were analyzed using the following analytical methods:

- 537 MOD Perfluorinated Hydrocarbons

The samples included in these SDGs are listed in the table below.

SDG	Sample_Name	Matrix
1600783	OFPOL-MW-7-0616	Water
1600783	OFPOL-MW-4-0616	Water
1600783	OFPOL-MW-8-0616	Water
1600783	OFPOL-MW-6-0616	Water
1600783	OFPOL-MW-3-0616	Water
1600783	OFPOL-MW-3P-0616	Water
1600783	OFPOL-MW-2-0616	Water
1600783	OF-MW13-0616	Water
1600783	OF-MW11-0616	Water
1600818	OF14-MW07S-0616	Water
1600818	OF14-MW07D-0616	Water
1600818	OF-MW14-0616	Water

SDG	Sample_Name	Matrix
1600818	OF-MW16-0616	Water
1600818	OF-FB062016	Water
1600818	OF-EB062016	Water
1600818	OF-MW15-0616	Water
1600818	OF-MW15D-0616	Water
1600818	OF14-MW06-0616	Water
1600818	OF14-MW06D-0616	Water
1600818	OF-MW17-0616	Water
1600818	OF-MW12D-0616	Water
1600818	OF-MW12-0616	Water
1600818	OF-MW13D-0616	Water
1600818	OF-MW13DP-0616	Water
1600818	OF-MW11D-0616	Water
1600820	OF-MW10-0616	Water
1600820	OF-MW08-0616	Water
1600820	OF-MW08P-0616	Water
1600820	OF-MW10D-0616	Water
1600820	OF-MW09-0616	Water
1600820	OF-MW09D-0616	Water
1600872	OF-MW28-0716	Water
1600872	OF-MW25-0716	Water
1600872	OF-MW31-0716	Water
1600872	OF-FB070616	Water
1600896	OF-MW24-0716	Water
1600896	OF-FB071116	Water
1600896	OF-MW27-0716	Water
1600903	OF-MW30-0716	Water
1600903	OF-MW30P-0716	Water
1600903	OF-MW30D-0716	Water
1600903	OF-MW28D-0716	Water
1600903	OF-MW32-0716	Water
1600903	OF-MW29-0716	Water
1600903	OF-MW08D-0716	Water
1600903	OF-MW34-0716	Water
1600903	OF-MW31D-0716	Water

Data Evaluation

Data was evaluated in accordance with the analytical methods and with the criteria found in the following guidance documents: Sampling and Analysis Plan Basewide Perfluorinated Compound Site Investigation, Naval Auxiliary Landing Field Fentress, Chesapeake, Virginia

Contract Task Order WE44 (August 2016) and National Functional Guidelines for Organic Data Review (August 2014) with Region 3 Modification (Use of 'B' qualifier) as applicable. The samples were evaluated based on the following criteria:

- Data Completeness
- Technical Holding Times
- Tuning Instrument
- Initial/Continuing Calibrations
- Blanks
- Internal Standards
- Laboratory Control Samples
- Isotope Dilution Analyte
- Field Duplicates
- Identification/Quantitation
- Reporting Limits

Overall Evaluation of Data/Potential Usability Issues

Specific details regarding qualification of the data are addressed in the sections below. If an issue is not addressed there were no actions required based on unmet quality criteria. When more than one qualifier is associated with a compound/analyte, the validator has chosen the qualifier that best indicates possible bias in the results and qualified these data accordingly.

Data Completeness

The SDG was received complete and intact.

Technical Holding Times

According to the chain of custody records, sampling was performed on 6/17/16 through 7/14/16. Samples were received at the laboratory 6/18/16 through 7/15/16. All sample preparation and analyses were performed within holding time requirements.

Conclusion

These data can be used in the project decision-making process as qualified by the data quality evaluation process.

Please do not hesitate to contact us about this validation report.

Sincerely,



Tiffany McGlynn

Qualification Flags

Exclude	More appropriate data exist for this analyte.
R	Data were rejected for use.
UL	Analyte not detected, quantitation limit is potentially biased low.
UJ	Analyte not detected, estimated quantitation limit.
U	Analyte not detected.
B	Not detected substantially above the level reported in laboratory or field blanks.
L	Analyte present, estimated value potentially biased low.
K	Analyte present, estimated value potentially biased high.
N	Analyte identification presumptive; no second column analysis performed or GC/MS tentative identification.
J	Analyte present, estimated value.
NJ	Analysis indicates the presence of an analyte that was "tentatively identified" and the associated value represents its approximate concentration.
None	Placeholder for calculating quality control issues that do not require flagging.
=	Analyte was detected at a concentration greater than the quantitation limit.

Qualifier Code Reference

Value	Description
%SOL	High Moisture content
2C	Second Column – Poor Dual Column Reproducibility
2S	Second Source – Bad reproducibility between tandem detectors
BD	Blank Spike/Blank Spike Duplicate(LCS/LCSD) Precision
BRL	Below Reporting Limit
BSH	Blank Spike/LCS – High Recovery
BSL	Blank Spike/LCS – Low Recovery
CC	Continuing Calibration
CCBL	Continuing Calibration Blank Contamination
CCH	Continuing Calibration Verification – High Recovery
CCL	Continuing Calibration Verification – Low Recovery
DL	Redundant Result – due to Dilution
EBL	Equipment Blank Contamination
EMPC	Estimated Possible Maximum Concentration
ESH	Extraction Standard - High Recovery
ESL	Extraction Standard - Low Recovery
FBL	Field Blank Contamination
FD	Field Duplicate
HT	Holding Time
ICB	Initial Calibration – Bad Linearity or Curve Function
ICH	Initial Calibration – High Relative Response Factors
ICL	Initial Calibration – Low Relative Response Factors
IR15	Ion ratio exceeds +/- 15% difference
ISH	Internal Standard – High Recovery
ISL	Internal Standard – Low Recovery
LD	Lab Duplicate Reproducibility
LR	Concentration Exceeds Linear Range
MBL	Method Blank Contamination
MDP	Matrix Spike/Matrix Spike Duplicate Precision
MI	Matrix interference obscuring the raw data

Value	Description
MSH	Matrix Spike and/or Matrix Spike Duplicate – High Recovery
MSL	Matrix Spike and/or Matrix Spike Duplicate – Low Recovery
OT	Other
PD	Pesticide Degradation
RE	Redundant Result - due to Reanalysis or Re-extraction
SD	Serial Dilution Reproducibility
SSH	Spiked Surrogate – High Recovery
SSL	Spiked Surrogate – Low Recovery
TBL	Trip Blank Contamination
TN	Tune

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16
OF17-MW11	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12176761.8	3425306.31	Perfluoroalkyl Compounds	OF-MW11-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OFPOL-MW-2	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177966.02	3425311.05	Perfluoroalkyl Compounds	OFPOL-MW-2-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-3	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12177926.43	3425368.69	Perfluoroalkyl Compounds	OFPOL-MW-3P-0616	WG	Ground water	17-Jun-16

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
OFPOL-MW-8	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178063.07	3425269.21	Perfluoroalkyl Compounds	OFPOL-MW-8-0616	WG	Ground water	17-Jun-16
OFPOL-MW-6	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178022.27	3425401.33	Perfluoroalkyl Compounds	OFPOL-MW-6-0616	WG	Ground water	17-Jun-16
OFPOL-MW-7	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178052.82	3425372.16	Perfluoroalkyl Compounds	OFPOL-MW-7-0616	WG	Ground water	17-Jun-16
OF-MW13S	SITE 00017	OCEANA_NAS	WLM	Monitoring well	1600783	12178087.11	3425956.7	Perfluoroalkyl Compounds	OF-MW13-0616	WG	Ground water	17-Jun-16
OFPOL-MW-4	UST 000011	OCEANA_NAS	WLM	Monitoring well	1600783	12178044.66	3425317.47	Perfluoroalkyl Compounds	OFPOL-MW-4-0616	WG	Ground water	17-Jun-16