N31260_000127
CHESAPEAKE_BEACH_NRL
SSIC 5000-33c

OFF-BASE DRINKING WATER SAMPLE RESULTS, LEVEL 2 LABORATORY REPORT, LEVEL 4 LABORATORY REPORT, ELECTRONIC DATA DELIVERABLE, DATA VALIDATION REPORT AND THE SAMPLE LOCATION FIGURE, SDG 1801824 NAVAL RESEARCH LABORATORY CHESAPEAKE BAY DETACHMENT NRL CHESAPEAKE BEACH MD

02/01/2019

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Naval Facilities Engineering Command

Off-base Drinking Water Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Figure, SDG 1801824

Naval Research Laboratory – Chesapeake Bay Detachment
Chesapeake Beach, Maryland

February 2019

Approved for public release: distribution unlimited

July 27, 2018

Vista Work Order No. 1801824

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on July 19, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-08 PFAS DW Investigation NRL CBD'.

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. 1801824
Case Narrative

Sample Condition on Receipt:

Eighteen drinking water 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.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of PFAS using EPA Method 537, Rev. 1.1.

Holding Times

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

Quality Control

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

A Laboratory Fortified Blank (LFB) and Laboratory Reagent Blank (LRB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank above 1/2 the LOQ. The LFB recoveries were within the method acceptance criteria.

The surrogate recoveries for all QC and field samples were within the acceptance criteria.

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CBD-1RW30-0718". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801824-01	CBD-1RW23-0718	17-Jul-18 09:04	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-02	CBD-1FB23-0718	17-Jul-18 09:07	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-03	CBD-1RW24-0718	17-Jul-18 09:50	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-04	CBD-1FB24-0718	17-Jul-18 09:52	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-05	CBD-1RW25-0718	17-Jul-18 10:38	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-06	CBD-1FB25-0718	17-Jul-18 10:40	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-07	CBD-1RW26-0718	17-Jul-18 11:20	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-08	CBD-1FB26-0718	17-Jul-18 11:22	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-09	CBD-1RW27-0718	18-Jul-18 09:09	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-10	CBD-1FB27-0718	18-Jul-18 09:11	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-11	CBD-1RW28-0718	18-Jul-18 09:22	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-12	CBD-1FB28-0718	18-Jul-18 09:24	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-13	CBD-1RW29-0718	18-Jul-18 10:37	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-14	CBD-1FB29-0718	18-Jul-18 10:40	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-15	CBD-1RW30-0718	MS/MSD18-Jul-18 10:50	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-16	CBD-1FB30-0718	18-Jul-18 10:52	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-17	CBD-1RW31-0718	18-Jul-18 14:15	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-18	CBD-1FB31-0718	18-Jul-18 14:17	19-Jul-18 09:41	HDPE Bottle, 250 mL

Vista Project: 1801824

Client Project: CTO-08 PFAS DW Investigation NRL CBD

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801824-18	CBD-1FB31-0718	18-Jul-18 14:17	19-Jul-18 09:41	HDPE Bottle, 250 mL

Vista Project: 1801824

Client Project: CTO-08 PFAS DW Investigation NRL CBD

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Matrix: Aqueous
Project: CTO-08 PFAS DW Investigation NRL CBD

Laboratory Data

Lab Sample: B8G0155-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	99.7	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
13C2-PFDA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
d5-EtFOSAA	SURR	92.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LFB

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Aqueous

Laboratory Data

Lab Sample: B8G0155-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	16.0	17.7	90.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHxA	307-24-4	18.6	20.0	93.0	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHpA	375-85-9	19.5	20.0	97.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHxS	355-46-4	14.5	18.2	79.6	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFOA	335-67-1	19.1	20.0	95.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFNA	375-95-1	18.7	20.0	93.7	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFOS	1763-23-1	14.3	18.5	77.4	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFDA	335-76-2	18.6	20.0	93.1	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
MeFOSAA	2355-31-9	16.6	20.0	82.8	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
EtFOSAA	2991-50-6	15.8	20.0	79.2	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFUnA	2058-94-8	18.6	20.0	92.9	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFDoA	307-55-1	19.8	20.0	98.9	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFTrDA	72629-94-8	18.4	20.0	91.8	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFTeDA	376-06-7	19.0	20.0	95.1	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
13C2-PFDA	SURR	102	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
d5-EtFOSAA	SURR	93.7	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1

Sample ID: CBD-1RW23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:04

Laboratory Data

Lab Sample: 1801824-01
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxA	307-24-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHpA	375-85-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxS	355-46-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOA	335-67-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFNA	375-95-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOS	1763-23-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDA	335-76-2	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
MeFOSAA	2355-31-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
EtFOSAA	2991-50-6	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFUnA	2058-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDoA	307-55-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTrDA	72629-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTeDA	376-06-7	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.2	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
13C2-PFDA	SURR	99.7	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
d5-EtFOSAA	SURR	90.3	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:07

Laboratory Data

Lab Sample: 1801824-02
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	67. -76-.	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHxA	607-24-4	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHpA	67. -8. -9	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHxS	6. . -45-4	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFOA	66. -57-1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFNA	67. -9. -1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFOS	1756-26-1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFDA	66. -75-2	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
MeFOSAA	26. . -61-9	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
EtFOSAA	2991-. 0-5	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFUnA	20. 8-94-8	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFDoA	607-. . -1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFTrDA	72529-94-8	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFTeDA	675-05-7	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
16C2-PFHxA	SURR	9837	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
16C2-PFDA	SURR	9537	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
d. -EtFOSAA	SURR	9831	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW24-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 03:. 0

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 13-9El-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	HJ. -JH-.	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu xA	HDJ-24-4	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu pA	HJ. -8. -3	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu xS	H . -46-4	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFOA	HH -6J-1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFNA	HJ. -3. -1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFOS	1J6H-2H-1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFDA	HH -J6-2	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
MeFOSAA	2H . -HI-3	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
ktFOSAA	2331-. 0-6	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFUnA	20. 8-34-8	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFDoA	HDJ-. . -1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFTrDA	J2623-34-8	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFTeDA	HJ6-06-J	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	101	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
1HC2-PFDA	SURR	101	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
d. -ktFOSAA	SURR	3052	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1FB24-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:32

Laboratory Data

Lab Sample: 1801824-04
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHxA	307-24-4	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHpA	375-85-9	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHxS	355-46-4	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFOA	335-67-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFNA	375-95-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFOS	1763-23-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFDA	335-76-2	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFUnA	2058-94-8	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFDoA	307-55-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFTrDA	72629-94-8	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFTeDA	376-06-7	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.1	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
13C2-PFDA	SURR	100	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
d3-EtFOSAA	SURR	94.4	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW23-0718

EPA Method 357

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 10:38

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 1. -9El-18 0. :41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	3JH-J3-H	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu xA	30J-24-4	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu pA	3JH-8H-.	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu xS	3HH-46-4	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFOA	33H-6J-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFNA	3JH-. H-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFOS	1J63-23-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFDA	33H-J6-2	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
MeFOSAA	23HH-31-.	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
ktFOSAA	2. . 1-H0-6	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFUnA	20H8-. 4-8	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFDoA	30J-HH-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFTrDA	J262. -. 4-8	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFTeDA	3J6-06-J	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	106	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
13C2-PFDA	SURR	. 654	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
dH-ktFOSAA	SURR	. 050	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1FB23-0718

EPA Method 357

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 10:40

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 13-9El-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	5JG-J5-G	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu xA	50J-24-4	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu pA	5JG-8G-3	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu xS	5GG-4H-4	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFOA	55G-HJ-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFNA	5JG-3G-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFOS	1JH-5-25-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFDA	55G-JH-2	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
MeFOSAA	25GG-51-3	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
ktFOSAA	2331-G0-H	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFUnA	20G8-34-8	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFDoA	50J-GG-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFTrDA	J2H23-34-8	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFTeDA	5JH-0H-J	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFu xA	SURR	108	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
15C2-PFDA	SURR	101	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
dG-ktFOSAA	SURR	3G4	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW26-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1H-JEl-18 11:20

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 19-JEl-18 09:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	3H5-HB-5	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu xA	30H-24-4	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu pA	3H5-85-9	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu xS	355-46-4	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFOA	335-6H-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFNA	3H5-95-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFOS	1H63-23-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFDA	335-H6-2	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
ktFOSAA	2991-50-6	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFUnA	2058-94-8	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFDoA	30H-55-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFTrDA	H2629-94-8	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFTeDA	3H6-06-H	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	103	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
13C2-PFDA	SURR	96.0	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
d5-ktFOSAA	SURR	86.1	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResEts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB26-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 11:22

Laboratory Data

Lab Sample: 1801824-08
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	57. -75-.	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHxA	507-24-4	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHpA	57. -8. -9	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHxS	5. . -46-4	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFOA	55. -67-1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFNA	57. -9. -1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFOS	1765-25-1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFDA	55. -76-2	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
MeFOSAA	25. . -51-9	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
EtFOSAA	2991-. 0-6	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFUnA	20. 8-94-8	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFDoA	507-. . -1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFTrDA	72629-94-8	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFTeDA	576-06-7	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFHxA	SURR	104	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
15C2-PFDA	SURR	9. 31	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
d. -EtFOSAA	SURR	101	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW23-0317

y EP A etMbh d53

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 0H:0H

8 aLboatbor Data

Lab Sample: 1801824-0H
Date Received: 1H-JEl-18 0H:41
ColEmn: Bku C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	9G -C9-.	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu xA	90G-24-4	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu pA	9G -8. -H	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu xS	9. . -46-4	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFOA	99. -6G-1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFNA	9G -H -1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFOS	1G69-29-1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFDA	99. -G6-2	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
MeFOSAA	29. . -91-H	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
ktFOSAA	2HH1-. 0-6	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFUnA	20. 8-H4-8	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFDoA	90G-. . -1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFTrDA	G262H-H4-8	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFTeDA	9G6-06-G	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
19C2-PFu xA	SURR	HG3H	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
19C2-PFDA	SURR	H23H	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
d. -ktFOSAA	SURR	H439	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL3

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1FB23-0317

y EP A etMbh d53

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:11

8 aLboatbor Data

Lab Sample: 1801824-10
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	635-36-5	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHxA	603-24-4	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHpA	635-85-J	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHxS	655-4. -4	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFOA	665-. 3-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFNA	635-J5-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFOS	13. 6-26-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFDA	665-3. -2	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
MeFOSAA	2655-61-J	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
EtFOSAA	2JJ1-50-.	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFUnA	2058-J4-8	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFDoA	603-55-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFTrDA	32. 2J-J4-8	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFTeDA	63. -0. -3	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
16C2-PFHxA	SURR	106	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
16C2-PFDA	SURR	8398	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
d5-EtFOSAA	SURR	J39B	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1RW23-0713

y EP A etMbh d57

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:22

8 aLboatbor Data

Lab Sample: 1801824-11
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	G6. -6G-.	8943	29J8	49J0	J981	7	B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHxA	G06-24-4	6928	29J8	49J0	J981	7	B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHpA	G6. -8. -J	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHxS	G . -43-4	1192	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFOA	GG -36-1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFNA	G6. -J. -1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFOS	163G-2G-1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFDA	GG -63-2	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
MeFOSAA	2G . -G1-J	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
EtFOSAA	2JJ1-. 0-3	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFUnA	20. 8-J4-8	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFDoA	G06-. . -1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFTrDA	6232J-J4-8	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFTeDA	G63-03-6	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
1GC2-PFHxA	SURR	J696	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
1GC2-PFDA	SURR	869	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
d. -EtFOSAA	SURR	J098	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1FB23-0713

y EP A etMbh d57

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:24

8 aLboatbor Data

Lab Sample: 1801824-12
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

Pnalrte	CPS NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Pnalrzeh	Dilutibn
PFBS	563-65-3	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFHxA	506-24-4	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFHpA	563-83-J	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFHxS	533-4. -4	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFOA	553-. 6-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFNA	563-J3-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFOS	16. 5-25-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFDA	553-6. -2	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
MeFOSAA	2533-51-J	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
EtFOSAA	2JJ1-30-.	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFUnA	2038-J4-8	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFDoA	506-33-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFTrDA	62. 2J-J4-8	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
PFTeDA	56. -0. -6	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Pnalrzeh	Dilutibn
15C2-PFHxA	SURR	J494	60 - 150		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
15C2-PFDA	SURR	8J96	60 - 150		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1
d3-EtFOSAA	SURR	8598	60 - 150		B8G0133	20-7ul-18	0238 L	23-7ul-18 10:25	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1RW29-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:H9

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H9G-9H-G	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu xA	H09-24-4	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu pA	H9G-8G-3	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu xS	HCG-45-4	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFOA	HHG-59-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFNA	H9G-3G-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFOS	195H-2H-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFDA	HHG-95-2	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
MeFOSAA	2HCG-HI-3	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
ktFOSAA	2331-C0-5	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFUnA	20C8-34-8	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFDoA	H09-CG-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFTrDA	92523-34-8	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFTeDA	H95-05-9	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	39.H	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
1HC2-PFDA	SURR	30.4	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
dG-ktFOSAA	SURR	3G8	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB29-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 10:40

Laboratory Data

Lab Sample: 1801824-14
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	9G -C9-.	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHxA	90G-24-4	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHpA	9G -8. -J	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHxS	9. . -46-4	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFOA	99. -6G-1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFNA	9G -J. -1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFOS	1G69-29-1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFDA	99. -G6-2	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
MeFOSAA	29. . -91-J	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
EtFOSAA	2JJ1-. 0-6	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFUnA	20. 8-J4-8	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFDoA	90G-. . -1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFTrDA	G262J-J4-8	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFTeDA	9G6-06-G	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
19C2-PFHxA	SURR	108	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
19C2-PFDA	SURR	102	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
d. -EtFOSAA	SURR	108	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW30-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:H0

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 19-JEl-18 09:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	36H-63-H	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu xA	306-24-4	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu pA	36H-8H-9	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu xS	3HH-45-4	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFOA	33H-56-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFNA	36H-9H-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFOS	1653-23-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFDA	33H-65-2	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
MeFOSAA	23HH-31-9	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
ktFOSAA	2991-H0-5	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFUnA	20H8-94-8	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFDoA	306-HH-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFTrDA	62529-94-8	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFTeDA	365-05-6	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	98.3	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
13C2-PFDA	SURR	94.0	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
dH-ktFOSAA	SURR	85.5	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW30-0718

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8G0155-MS1/B8G0155-MSD1	Source Lab Sample:	1801824-15
Project:	CTO-08 PFAS DW Investigation NRL CBD	QC Batch:	B8G0155	Date Extracted:	20-Jul-18
Matrix:	Aqueous	Samp Size:	0.253/0.249 L	Column:	BEH C18

Analyte	CAS Number	Sample (ng/L)	LFSM (ng/L)	LFSM Spike Amt	LFSM % Rec	LFSM Quals	LFSMD (ng/L)	LFSMD Spike Amt	LFSMD % Rec	RPD	LFSMD Quals	%Rec Limits	RPD Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
PFBS	375-73-5	ND	15.9	17.5	90.6		17.1	17.7	96.4	6.20		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHxA	307-24-4	ND	19.7	19.8	99.7		21.7	20.1	108	7.99		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHpA	375-85-9	ND	20.7	19.8	105		21.0	20.1	104	0.957		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHxS	355-46-4	ND	14.7	18.0	81.9		16.8	18.3	91.8	11.4		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFOA	335-67-1	ND	19.7	19.8	98.8		19.9	20.1	98.1	0.711		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFNA	375-95-1	ND	19.2	19.8	96.9		20.0	20.1	99.3	2.45		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFOS	1763-23-1	ND	15.9	18.3	87.1		19.1	18.5	103	16.7		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFDA	335-76-2	ND	20.0	19.8	100		21.3	20.1	105	4.88		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
MeFOSAA	2355-31-9	ND	18.4	19.8	93.0		17.8	20.1	88.7	4.73		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
EtFOSAA	2991-50-6	ND	16.9	19.8	85.1		18.8	20.1	93.3	9.19		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFUnA	2058-94-8	ND	20.0	19.8	101		21.2	20.1	105	3.88		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFDoA	307-55-1	ND	19.4	19.8	97.8		20.8	20.1	103	5.18		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFTrDA	72629-94-8	ND	18.4	19.8	93.0		18.9	20.1	93.9	0.963		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFTeDA	376-06-7	ND	19.4	19.8	98.1		19.7	20.1	97.9	0.204		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1

Labeled Standards	Type	LFSM % Rec	LFSM Quals	LFSMD % Rec	LFSMD Quals	Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
13C2-PFHxA	SURR	102		106		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1
13C2-PFDA	SURR	97.1		103		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1
d5-EtFOSAA	SURR	86.7		91.1		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1

Sample ID: CBD-1FB30-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:92

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	. 69-6. -9	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu xA	. 06-24-4	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu pA	. 69-89-3	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu xS	. 99-4H-4	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFOA	. . 9-H6-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFNA	. 69-39-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFOS	16H -2. -1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFDA	. . 9-6H-2	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
MeFOSAA	2. 99-. 1-3	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
ktFOSAA	2331-90-H	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFUnA	2098-34-8	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFDoA	. 06-99-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFTrDA	62H23-34-8	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFTeDA	. 6H-0H-6	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1. C2-PFu xA	SURR	102	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
1. C2-PFDA	SURR	3H54	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
d9-ktFOSAA	SURR	108	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1RW31-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 14:19

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	GH9-HG-9	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu xA	G0H-24-4	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu pA	GH9-89-3	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu xS	G99-46-4	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFOA	GG9-6H-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFNA	GH9-39-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFOS	1H6G-2G-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFDA	GG9-H6-2	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
MeFOSAA	2G99-G1-3	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
ktFOSAA	2331-90-6	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFUnA	2098-34-8	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFDoA	G0H-99-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFTrDA	H2623-34-8	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFTeDA	GH6-06-H	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1GC2-PFu xA	SURR	10G	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
1GC2-PFDA	SURR	3GG	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
d9-ktFOSAA	SURR	31.0	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB31-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 14:1J

Laboratory Data

Lab Sample: 1801824-18
Date Received: 19-7ul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	6J. -J6-.	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHxA	60J-24-4	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHpA	6J. -8. -9	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHxS	6. . -45-4	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFOA	66. -5J-1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFNA	6J. -9. -1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFOS	1J56-26-1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFDA	66. -J5-2	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
MeFOSAA	26. . -61-9	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
EtFOSAA	2991-. 0-5	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFUnA	20. 8-94-8	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFDoA	60J-. . -1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFTrDA	J2529-94-8	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFTeDA	6J5-05-J	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
16C2-PFHxA	SURR	9935	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
16C2-PFDA	SURR	913J	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
d. -EtFOSAA	SURR	983I	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank**
Conc.	**Concentration**
D	**Dilution**
DL	**Detection limit**
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 Reporting Limit/LOQ**
LOD	**Limits of Detection**
LOQ	**Limits of Quantitation**
M	**Estimated Maximum Possible Concentration (CA Region 2 projects only)**
NA	**Not applicable**
ND	**Not Detected**
Q	**Ion ratio outside of 70-130% of Standard Ratio. (DOD PFAS projects only)**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**
*****	**See Cover Letter**

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
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.

Rev. Date: 06/27/2017

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801824 Temp: 0.7 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRL CBD PFAS DW INVESTIGATION PO#: 101001982 Sampler: R McElhinny (name)

TAT (check one): Standard: ☐ 21 days; Rush (surcharge may apply): ☐ 14 days ☒ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Wittmer	7/18/18	1730	Kim Eurc	07/19/18	0946
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW23-0718	7/17/18	0904		2	P	DW								X	
CBD-1FB23-0718		0907		2	P	DW								X	
CBD-1RW24-0718		0950		2	P	DW								X	
CBD-1FB24-0718		0952		2	P	DW								X	
CBD-1RW25-0718		1038		2	P	DW								X	
CBD-1FB25-0718		1040		2	P	DW								X	
CBD-1RW26-0718		1120		2	P	DW								X	
CBD-1FB26-0718		1122		2	P	DW								X	
CBD-1RW27-0718	7/18/18	0909		2	P	DW								X	
CBD-1FB27-0718	7/18/18	0911		2	P	DW								X	

Special Instructions/Comments: 7 DAY TAT
Analysis of DW samples for 14 PFAS compounds in Method 537

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M Hill INC
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other:

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma:

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

Rev. Date: 06/27/2017

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801824 Temp: 0.7 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRI CBD PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinny (name)

TAT (check one): Standard: ☐ 21 days; Rush (surcharge may apply): ☐ 14 days ☒ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste. 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Whaver	7/18/18	1730	Kim Eric	07/19/18	0946
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW28-0718	7/18/18	0922		2	P	DW								X	
CBD-1FB28-0718		0924		2	P	DW								X	
CBD-1RW29-0718		1037		2	P	DW								X	
CBD-1FB29-0718		1040		2	P	DW								X	
CBD-1RW30-0718		1050		2	P	DW								X	
CBD-1RW30-0718-MS		1050		2	P	DW								X	
CBD-1RW30-0718-SD		1050		2	P	DW								X	
CBD-1FB30-0718		1052		2	P	DW								X	
CBD-1RW31-0718		1415		2	P	DW								X	
CBD-1FB31-0718		1417		2	P	DW								X	

Special Instructions/Comments: 7 DAY TAT
Analysis of DW samples for 14 PFAS compounds in Method 537

SEND DOCUMENTATION AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M Hill Inc
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: P= HDPE, PJ= HDPE Jar O = Other:

Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:

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

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1801824 **TAT** 7 day

Samples Arrival:	**Date/Time** 7/19/18 0941	**Initials:** KE	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 07/19/18 0955	**Initials:** MMS	**Location:** WR-2 **Shelf/Rack:** E-3, E-6

Delivered By:	FedEx	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None

Temp °C: 0.7 (uncorrected)	**Time:** 0950	**Thermometer ID:** ~~IR-4~~ DT-3 KE 07/19/18
Temp °C: 0.7 (corrected)	**Probe used: Yes** ☑ **No** ☐	

	YES	NO	NA
Adequate Sample Volume Received?	MMS		
Holding Time Acceptable?	MMS		
Shipping Container(s) Intact?	KE		
Shipping Custody Seals Intact?	KE		
Shipping Documentation Present?	KE		
Airbill — Trk # 7819 1833 5447	KE		
Sample Container Intact?	MMS		
Sample Custody Seals Intact?			MMS
Chain of Custody / Sample Documentation Present?	KE		
COC Anomaly/Sample Acceptance Form completed?		MMS	MMS

If Chlorinated or Drinking Water Samples, Acceptable Preservation?				MMS		
Preservation Documented:	$Na_2S_2O_3$	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:

July 27, 2018

Vista Work Order No. 1801824

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on July 19, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-08 PFAS DW Investigation NRL CBD'.

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 Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

Vista Work Order No. 1801824
Case Narrative

Sample Condition on Receipt:

Eighteen drinking water 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.

Analytical Notes:

EPA Method 537, Rev. 1.1

The samples were extracted and analyzed for a selected list of PFAS using EPA Method 537, Rev. 1.1.

Holding Times

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

Quality Control

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

A Laboratory Fortified Blank (LFB) and Laboratory Reagent Blank (LRB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank above 1/2 the LOQ. The LFB recoveries were within the method acceptance criteria.

The surrogate recoveries for all QC and field samples were within the acceptance criteria.

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CBD-1RW30-0718". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801824-01	CBD-1RW23-0718	17-Jul-18 09:04	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-02	CBD-1FB23-0718	17-Jul-18 09:07	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-03	CBD-1RW24-0718	17-Jul-18 09:50	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-04	CBD-1FB24-0718	17-Jul-18 09:52	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-05	CBD-1RW25-0718	17-Jul-18 10:38	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-06	CBD-1FB25-0718	17-Jul-18 10:40	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-07	CBD-1RW26-0718	17-Jul-18 11:20	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-08	CBD-1FB26-0718	17-Jul-18 11:22	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-09	CBD-1RW27-0718	18-Jul-18 09:09	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-10	CBD-1FB27-0718	18-Jul-18 09:11	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-11	CBD-1RW28-0718	18-Jul-18 09:22	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-12	CBD-1FB28-0718	18-Jul-18 09:24	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-13	CBD-1RW29-0718	18-Jul-18 10:37	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-14	CBD-1FB29-0718	18-Jul-18 10:40	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-15	CBD-1RW30-0718	MS/MSD18-Jul-18 10:50	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-16	CBD-1FB30-0718	18-Jul-18 10:52	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-17	CBD-1RW31-0718	18-Jul-18 14:15	19-Jul-18 09:41	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1801824-18	CBD-1FB31-0718	18-Jul-18 14:17	19-Jul-18 09:41	HDPE Bottle, 250 mL

Vista Project: 1801824

Client Project: CTO-08 PFAS DW Investigation NRL CBD

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1801824-18	CBD-1FB31-0718	18-Jul-18 14:17	19-Jul-18 09:41	HDPE Bottle, 250 mL

Vista Project: 1801824

Client Project: CTO-08 PFAS DW Investigation NRL CBD

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Matrix: Aqueous
Project: CTO-08 PFAS DW Investigation NRL CBD

Laboratory Data

Lab Sample: B8G0155-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHxA	307-24-4	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHpA	375-85-9	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFHxS	355-46-4	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFOA	335-67-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFNA	375-95-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFOS	1763-23-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFDA	335-76-2	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
MeFOSAA	2355-31-9	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
EtFOSAA	2991-50-6	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFUnA	2058-94-8	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFDoA	307-55-1	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFTrDA	72629-94-8	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
PFTeDA	376-06-7	ND	3.04	5.00	10.0		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	99.7	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
13C2-PFDA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1
d5-EtFOSAA	SURR	92.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: LFB

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Aqueous

Laboratory Data

Lab Sample: B8G0155-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	16.0	17.7	90.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHxA	307-24-4	18.6	20.0	93.0	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHpA	375-85-9	19.5	20.0	97.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFHxS	355-46-4	14.5	18.2	79.6	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFOA	335-67-1	19.1	20.0	95.3	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFNA	375-95-1	18.7	20.0	93.7	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFOS	1763-23-1	14.3	18.5	77.4	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFDA	335-76-2	18.6	20.0	93.1	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
MeFOSAA	2355-31-9	16.6	20.0	82.8	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
EtFOSAA	2991-50-6	15.8	20.0	79.2	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFUnA	2058-94-8	18.6	20.0	92.9	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFDoA	307-55-1	19.8	20.0	98.9	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFTrDA	72629-94-8	18.4	20.0	91.8	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
PFTeDA	376-06-7	19.0	20.0	95.1	70 - 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
13C2-PFDA	SURR	102	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1
d5-EtFOSAA	SURR	93.7	70- 130		B8G0155	20-Jul-18	0.250 L	24-Jul-18 21:57	1

Sample ID: CBD-1RW23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:04

Laboratory Data

Lab Sample: 1801824-01
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxA	307-24-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHpA	375-85-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxS	355-46-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOA	335-67-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFNA	375-95-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOS	1763-23-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDA	335-76-2	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
MeFOSAA	2355-31-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
EtFOSAA	2991-50-6	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFUnA	2058-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDoA	307-55-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTrDA	72629-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTeDA	376-06-7	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.2	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
13C2-PFDA	SURR	99.7	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
d5-EtFOSAA	SURR	90.3	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:07

Laboratory Data

Lab Sample: 1801824-02
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	67. -76-.	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHxA	607-24-4	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHpA	67. -8. -9	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFHxS	6. . -45-4	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFOA	66. -57-1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFNA	67. -9. -1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFOS	1756-26-1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFDA	66. -75-2	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
MeFOSAA	26. . -61-9	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
EtFOSAA	2991-. 0-5	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFUnA	20. 8-94-8	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFDoA	607-. . -1	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFTrDA	72529-94-8	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
PFTeDA	675-05-7	ND	239.	4384	9359		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
16C2-PFHxA	SURR	9837	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
16C2-PFDA	SURR	9537	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1
d. -EtFOSAA	SURR	9831	70 - 160		B8G01. .	20-Jul-18	0392. 8 L	24-Jul-18 22:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW24-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 03:. 0

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 13-9El-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	HJ. -JH-.	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu xA	HDJ-24-4	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu pA	HJ. -8. -3	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFu xS	H . -46-4	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFOA	HH -6J-1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFNA	HJ. -3. -1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFOS	1J6H-2H-1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFDA	HH -J6-2	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
MeFOSAA	2H . -HI-3	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
ktFOSAA	2331-. 0-6	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFUnA	20. 8-34-8	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFDoA	HDJ-. . -1	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFTrDA	J2623-34-8	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
PFTeDA	HJ6-06-J	ND	H50H	4538	3535		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	101	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
1HC2-PFDA	SURR	101	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1
d. -ktFOSAA	SURR	3052	J0 - 1H0		B8G01. .	20-9El-18	052. 1 L	24-9El-18 2H:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1FB24-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:32

Laboratory Data

Lab Sample: 1801824-04
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHxA	307-24-4	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHpA	375-85-9	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFHxS	355-46-4	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFOA	335-67-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFNA	375-95-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFOS	1763-23-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFDA	335-76-2	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFUnA	2058-94-8	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFDoA	307-55-1	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFTrDA	72629-94-8	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
PFTeDA	375-76-5	ND	2.97	4.88	9.75		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	95.1	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
13C2-PFDA	SURR	100	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1
d3-EtFOSAA	SURR	94.4	70 - 130		B860133	20-Jul-18	0.235 L	24-Jul-18 20:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW23-0718

EPA Method 357

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 10:38

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 1. -9El-18 0. :41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	3JH-J3-H	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu xA	30J-24-4	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu pA	3JH-8H-.	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFu xS	3HH-46-4	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFOA	33H-6J-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFNA	3JH-. H-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFOS	1J63-23-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFDA	33H-J6-2	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
MeFOSAA	23HH-31-.	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
ktFOSAA	2. . 1-H0-6	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFUnA	20H8-. 4-8	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFDoA	30J-HH-1	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFTrDA	J262. -. 4-8	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
PFTeDA	3J6-06-J	ND	25 8	45 0	. 580		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	106	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
13C2-PFDA	SURR	. 654	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1
dH-ktFOSAA	SURR	. 050	J0 - 130		B8G01HH	20-9El-18	052HHL	2H-9El-18 08:H4	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1FB23-0718

EPA Method 357

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1J-9El-18 10:40

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 13-9El-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	5JG-J5-G	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu xA	50J-24-4	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu pA	5JG-8G-3	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFu xS	5GG-4H-4	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFOA	55G-HJ-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFNA	5JG-3G-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFOS	1JH-5-25-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFDA	55G-JH-2	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
MeFOSAA	25GG-51-3	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
ktFOSAA	2331-G0-H	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFUnA	20G8-34-8	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFDoA	50J-GG-1	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFTrDA	J2H23-34-8	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
PFTeDA	5JH-0H-J	ND	2.33	4.32	3.85		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFu xA	SURR	108	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
15C2-PFDA	SURR	101	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1
dG-ktFOSAA	SURR	3G4	J0 - 150		B86 01GG	20-9El-18	0.2G4 L	2G-9El-18 03:0H	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW26-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 1H-JEl-18 11:20

Laboratory Data

Lab Sample: 1801824-0H
Date Received: 19-JEl-18 09:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	3H5-HB-5	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu xA	30H-24-4	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu pA	3H5-85-9	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFu xS	355-46-4	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFOA	335-6H-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFNA	3H5-95-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFOS	1H63-23-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFDA	335-H6-2	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
ktFOSAA	2991-50-6	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFUnA	2058-94-8	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFDoA	30H-55-1	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFTrDA	H2629-94-8	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
PFTeDA	3H6-06-H	ND	3.00	4.92	9.85		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	103	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
13C2-PFDA	SURR	96.0	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1
d5-ktFOSAA	SURR	86.1	H0 - 130		B8G0155	20-JEl-18	0.254 L	25-JEl-18 09:19	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB26-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 11:22

Laboratory Data

Lab Sample: 1801824-08
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	57. -75-.	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHxA	507-24-4	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHpA	57. -8. -9	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFHxS	5. . -46-4	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFOA	55. -67-1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFNA	57. -9. -1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFOS	1765-25-1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFDA	55. -76-2	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
MeFOSAA	25. . -51-9	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
EtFOSAA	2991-. 0-6	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFUnA	20. 8-94-8	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFDoA	507-. . -1	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFTrDA	72629-94-8	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
PFTeDA	576-06-7	ND	2398	4390	9379		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFHxA	SURR	104	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
15C2-PFDA	SURR	9. 31	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1
d. -EtFOSAA	SURR	101	70 - 150		B8G01. .	20-Jul-18	0392. . L	2. -Jul-18 09:51	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW23-0317

y EP A etMbh d53

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 0H:0H

8 aLboatbor Data

Lab Sample: 1801824-0H
Date Received: 1H-JEl-18 0H:41
ColEmn: Bku C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	9G -C9-.	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu xA	90G-24-4	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu pA	9G -8. -H	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFu xS	9. . -46-4	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFOA	99. -6G-1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFNA	9G -H -1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFOS	1G69-29-1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFDA	99. -G6-2	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
MeFOSAA	29. . -91-H	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
ktFOSAA	2HH1 -. 0-6	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFUnA	20. 8-H4-8	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFDoA	90G-. . -1	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFTrDA	G262H-H4-8	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
PFTeDA	9G6-06-G	ND	9301	43H4	H3H0		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
19C2-PFu xA	SURR	HG3H	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
19C2-PFDA	SURR	H23H	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1
d. -ktFOSAA	SURR	H439	G0 - 190		B85 01. .	20-JEl-18	032. 9 L	2. -JEl-18 0H:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL3

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1FB23-0317

y EP A etMbh d53

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:11

8 aLboatbor Data

Lab Sample: 1801824-10
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	635-36-5	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHxA	603-24-4	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHpA	635-85-J	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFHxS	655-4. -4	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFOA	665-. 3-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFNA	635-J5-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFOS	13. 6-26-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFDA	665-3. -2	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
MeFOSAA	2655-61-J	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
EtFOSAA	2JJ1-50-.	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFUnA	2058-J4-8	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFDoA	603-55-1	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFTrDA	32. 2J-J4-8	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
PFTeDA	63. -0. -3	ND	29J3	4988	J9B.		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
16C2-PFHxA	SURR	106	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
16C2-PFDA	SURR	8398	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1
d5-EtFOSAA	SURR	J39B	30 - 160		B8G0155	20-7ul-18	0925. L	25-7ul-18 0J:53	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1RW23-0713

y EP A etMbh d57

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:22

8 aLboatbor Data

Lab Sample: 1801824-11
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

P nalrte	CP S NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
PFBS	G6. -6G-.	8943	29J8	49J0	J981	7	B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHxA	G06-24-4	6928	29J8	49J0	J981	7	B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHpA	G6. -8. -J	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFHxS	G . -43-4	1192	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFOA	GG -36-1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFNA	G6. -J. -1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFOS	163G-2G-1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFDA	GG -63-2	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
MeFOSAA	2G . -G1-J	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
EtFOSAA	2JJ1-. 0-3	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFUnA	20. 8-J4-8	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFDoA	G06-. . -1	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFTrDA	6232J-J4-8	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
PFTeDA	G63-03-6	ND	29J8	49J0	J981		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	P nalrzeh	Dilutibn
1GC2-PFHxA	SURR	J696	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
1GC2-PFDA	SURR	869	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1
d. -EtFOSAA	SURR	J098	60 - 1G0		B85 01. .	20-7ul-18	092. . L	2. -7ul-18 10:10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1FB23-0713

y EP A etMbh d57

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 0J:24

8 aLboatbor Data

Lab Sample: 1801824-12
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

Pnalrte	CPS NumLeo	Cbnc. (ng/8)	D8	8 OD	8 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Pnalrzeh	Dilutibn
PFBS	563-65-3	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFHxA	506-24-4	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFHpA	563-83-J	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFHxS	533-4. -4	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFOA	553-. 6-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFNA	563-J3-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFOS	16. 5-25-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFDA	553-6. -2	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
MeFOSAA	2533-51-J	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
EtFOSAA	2JJ1-30-.	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFUnA	2038-J4-8	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFDoA	506-33-1	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFTrDA	62. 2J-J4-8	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
PFTeDA	56. -0. -6	ND	29J3	4984	J92 J		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1

8 aLeleh Stanhaohs	Trpe	% Recbveor	8 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Pnalrzeh	Dilutibn
15C2-PFHxA	SURR	J494	60 - 150		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
15C2-PFDA	SURR	8J96	60 - 150		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1
d3-EtFOSAA	SURR	8598	60 - 150		B8G0133	20-7ul-18	0928 L	23-7ul-18 10:25	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL9

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers9 Only the linear isomer is reported for all other analytes9

Sample ID: CBD-1RW29-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:H9

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	H9G-9H-G	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu xA	H09-24-4	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu pA	H9G-8G-3	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFu xS	HCG-45-4	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFOA	HHG-59-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFNA	H9G-3G-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFOS	195H-2H-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFDA	HHG-95-2	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
MeFOSAA	2HCG-HI-3	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
ktFOSAA	2331-C0-5	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFUnA	20C8-34-8	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFDoA	H09-CG-1	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFTrDA	92523-34-8	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
PFTeDA	H95-05-9	ND	2.39	4.88	3.95		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	SURR	39.H	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
1HC2-PFDA	SURR	30.4	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1
dG-ktFOSAA	SURR	3G8	90 - 1H0		B86 01GG	20-JEl-18	0.2G5 L	2G-JEl-18 10:H5	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB29-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 10:40

Laboratory Data

Lab Sample: 1801824-14
Date Received: 1J-7ul-18 0J:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	9G -C9-.	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHxA	90G-24-4	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHpA	9G -8. -J	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFHxS	9. . -46-4	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFOA	99. -6G-1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFNA	9G -J. -1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFOS	1G69-29-1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFDA	99. -G6-2	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
MeFOSAA	29. . -91-J	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
EtFOSAA	2JJ1-. 0-6	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFUnA	20. 8-J4-8	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFDoA	90G-. . -1	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFTrDA	G262J-J4-8	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
PFTeDA	9G6-06-G	ND	9301	43J4	J38J		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
19C2-PFHxA	SURR	108	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
19C2-PFDA	SURR	102	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1
d. -EtFOSAA	SURR	108	G0 - 190		B85 01. .	20-7ul-18	032. 9 L	2. -7ul-18 10:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

Sample ID: CBD-1RW30-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:H0

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 19-JEl-18 09:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	36H-63-H	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu xA	306-24-4	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu pA	36H-8H-9	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFu xS	3HH-45-4	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFOA	33H-56-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFNA	36H-9H-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFOS	1653-23-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFDA	33H-65-2	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
MeFOSAA	23HH-31-9	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
ktFOSAA	2991-H0-5	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFUnA	20H8-94-8	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFDoA	306-HH-1	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFTrDA	62529-94-8	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
PFTeDA	365-05-6	ND	3.02	4.95	9.93		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SURR	98.3	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
13C2-PFDA	SURR	94.0	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1
dH-ktFOSAA	SURR	85.5	60 - 130		B8G01HH	20-JEl-18	0.2H2 L	2H-JEl-18 11:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1RW30-0718

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8G0155-MS1/B8G0155-MSD1	Source Lab Sample:	1801824-15
Project:	CTO-08 PFAS DW Investigation NRL CBD	QC Batch:	B8G0155	Date Extracted:	20-Jul-18
Matrix:	Aqueous	Samp Size:	0.253/0.249 L	Column:	BEH C18

Analyte	CAS Number	Sample (ng/L)	LFSM (ng/L)	LFSM Spike Amt	LFSM % Rec	LFSM Quals	LFSMD (ng/L)	LFSMD Spike Amt	LFSMD % Rec	RPD	LFSMD Quals	%Rec Limits	RPD Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
PFBS	375-73-5	ND	15.9	17.5	90.6		17.1	17.7	96.4	6.20		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHxA	307-24-4	ND	19.7	19.8	99.7		21.7	20.1	108	7.99		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHpA	375-85-9	ND	20.7	19.8	105		21.0	20.1	104	0.957		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFHxS	355-46-4	ND	14.7	18.0	81.9		16.8	18.3	91.8	11.4		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFOA	335-67-1	ND	19.7	19.8	98.8		19.9	20.1	98.1	0.711		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFNA	375-95-1	ND	19.2	19.8	96.9		20.0	20.1	99.3	2.45		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFOS	1763-23-1	ND	15.9	18.3	87.1		19.1	18.5	103	16.7		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFDA	335-76-2	ND	20.0	19.8	100		21.3	20.1	105	4.88		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
MeFOSAA	2355-31-9	ND	18.4	19.8	93.0		17.8	20.1	88.7	4.73		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
EtFOSAA	2991-50-6	ND	16.9	19.8	85.1		18.8	20.1	93.3	9.19		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFUnA	2058-94-8	ND	20.0	19.8	101		21.2	20.1	105	3.88		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFDoA	307-55-1	ND	19.4	19.8	97.8		20.8	20.1	103	5.18		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFTrDA	72629-94-8	ND	18.4	19.8	93.0		18.9	20.1	93.9	0.963		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1
PFTeDA	376-06-7	ND	19.4	19.8	98.1		19.7	20.1	97.9	0.204		70-130		24-Jul-18 22:10	1	24-Jul-18 22:22	1

Labeled Standards	Type	LFSM % Rec	LFSM Quals	LFSMD % Rec	LFSMD Quals	Limits	LFSM Analyzed	LFSM Dil	LFSMD Analyzed	LFS MD
13C2-PFHxA	SURR	102		106		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1
13C2-PFDA	SURR	97.1		103		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1
d5-EtFOSAA	SURR	86.7		91.1		70-130	24-Jul-18 22:10	1	24-Jul-18 22:22	1

Sample ID: CBD-1FB30-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 10:92

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	. 69-6. -9	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu xA	. 06-24-4	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu pA	. 69-89-3	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFu xS	. 99-4H-4	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFOA	. . 9-H6-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFNA	. 69-39-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFOS	16H -2. -1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFDA	. . 9-6H-2	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
MeFOSAA	2. 99-. 1-3	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
ktFOSAA	2331-90-H	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFUnA	2098-34-8	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFDoA	. 06-99-1	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFTrDA	62H23-34-8	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
PFTeDA	. 6H-0H-6	ND	. 502	4538	3539		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1. C2-PFu xA	SURR	102	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
1. C2-PFDA	SURR	3H54	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1
d9-ktFOSAA	SURR	108	60 - 1. 0		B8G0199	20-JEl-18	0529 1 L	29-JEl-18 11:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL5

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers5 Only the linear isomer is reported for all other analytes5

Sample ID: CBD-1RW31-0718

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drin7ing Water
Date Collected: 18-JEl-18 14:19

Laboratory Data

Lab Sample: 1801824-1H
Date Received: 13-JEl-18 03:41
ColEmn: Bku C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	GH9-HG-9	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu xA	G0H-24-4	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu pA	GH9-89-3	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFu xS	G99-46-4	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFOA	GG9-6H-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFNA	GH9-39-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFOS	1H6G-2G-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFDA	GG9-H6-2	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
MeFOSAA	2G99-G1-3	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
ktFOSAA	2331-90-6	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFUnA	2098-34-8	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFDoA	G0H-99-1	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFTrDA	H2623-34-8	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
PFTeDA	GH6-06-H	ND	2.33	4.32	3.89		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1GC2-PFu xA	SURR	10G	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
1GC2-PFDA	SURR	3GG	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1
d9-ktFOSAA	SURR	31.0	H0 - 1G0		B85 0199	20-JEl-18	0.294 L	29-JEl-18 11:2H	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of qEantitation

ResElts reported to the DL.

When reported, PFu xS, PFOA, PFOS, MeFOSAA and ktFOSAA inclEde both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CBD-1FB31-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-7ul-18 14:1J

Laboratory Data

Lab Sample: 1801824-18
Date Received: 19-7ul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	6J. -J6-.	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHxA	60J-24-4	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHpA	6J. -8. -9	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFHxS	6. . -45-4	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFOA	66. -5J-1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFNA	6J. -9. -1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFOS	1J56-26-1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFDA	66. -J5-2	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
MeFOSAA	26. . -61-9	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
EtFOSAA	2991-. 0-5	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFUnA	20. 8-94-8	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFDoA	60J-. . -1	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFTrDA	J2529-94-8	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
PFTeDA	6J5-05-J	ND	239.	4384	9359		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
16C2-PFHxA	SURR	9935	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
16C2-PFDA	SURR	913J	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1
d. -EtFOSAA	SURR	983I	J0 - 160		B8G01. .	20-7ul-18	032. 8 L	2. -7ul-18 11:40	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL3

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers3 Only the linear isomer is reported for all other analytes3

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank**
Conc.	**Concentration**
D	**Dilution**
DL	**Detection limit**
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 Reporting Limit/LOQ**
LOD	**Limits of Detection**
LOQ	**Limits of Quantitation**
M	**Estimated Maximum Possible Concentration (CA Region 2 projects only)**
NA	**Not applicable**
ND	**Not Detected**
Q	**Ion ratio outside of 70-130% of Standard Ratio. (DOD PFAS projects only)**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**
*****	**See Cover Letter**

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
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.

Rev. Date: 06/27/2017

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801824 Temp: 0.7 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRL CBD PFAS DW INVESTIGATION PO#: 101001982 Sampler: R McElhinny (name)

TAT (check one): Standard: ☐ 21 days; Rush (surcharge may apply): ☐ 14 days ☒ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Wittmer	7/18/18	1730	Kim Eurc	07/19/18	0946
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW23-0718	7/17/18	0904		2	P	DW								X	
CBD-1FB23-0718		0907		2	P	DW								X	
CBD-1RW24-0718		0950		2	P	DW								X	
CBD-1FB24-0718		0952		2	P	DW								X	
CBD-1RW25-0718		1038		2	P	DW								X	
CBD-1FB25-0718		1040		2	P	DW								X	
CBD-1RW26-0718		1120		2	P	DW								X	
CBD-1FB26-0718		1122		2	P	DW								X	
CBD-1RW27-0718	7/18/18	0909		2	P	DW								X	
CBD-1FB27-0718	7/18/18	0911		2	P	DW								X	

Special Instructions/Comments: 7 DAY TAT
Analysis of DW samples for 14 PFAS compounds in Method 537

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M HILL INC
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other:

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma:

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

Rev. Date: 06/27/2017

CTO-08 679580.14.F1.FS

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1801824 Temp: 0.7 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: CTO-08 NRI CBD PFAS DW INVESTIGATION PO#: 101001982 Sampler: R. McElhinny (name)

TAT (check one): Standard: ☐ 21 days; Rush (surcharge may apply): ☐ 14 days ☒ 7 days Specify:

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Tiffany Hill	CH2M	1100 NE Circle Blvd Ste. 300	Corvallis	Oregon	541-768-3109	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Mike Whaver	7/18/18	1730	Kim Eric	07/19/18	0946
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: FEDEX

Tracking No.:

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
CBD-1RW28-0718	7/18/18	0922		2	P	DW								X	
CBD-1FB28-0718		0924		2	P	DW								X	
CBD-1RW29-0718		1037		2	P	DW								X	
CBD-1FB29-0718		1040		2	P	DW								X	
CBD-1RW30-0718		1050		2	P	DW								X	
CBD-1RW30-0718-MS		1050		2	P	DW								X	
CBD-1RW30-0718-SD		1050		2	P	DW								X	
CBD-1FB30-0718		1052		2	P	DW								X	
CBD-1RW31-0718		1415		2	P	DW								X	
CBD-1FB31-0718		1417		2	P	DW								X	

Special Instructions/Comments: 7 DAY TAT
Analysis of DW samples for 14 PFAS compounds in Method 537

SEND DOCUMENTATION AND RESULTS TO:
Name: Tiffany Hill
Company: CH2M Hill Inc
Address: 1100 NE Circle Blvd Ste 300
City: Corvallis State: OR Zip: 97330
Phone: 541-768-3109 Fax:
Email: Tiffany.Hill@ch2m.com

Container Types: P= HDPE, PJ= HDPE Jar
O = Other:

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma:

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

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1801824 **TAT** 7 day

Samples Arrival:	**Date/Time** 7/19/18 0941	**Initials:** KE	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 07/19/18 0955	**Initials:** MMS	**Location:** WR-2 **Shelf/Rack:** E-3, E-6

Delivered By:	FedEx	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None

Temp °C: 0.7 (uncorrected)	**Time:** 0950	**Thermometer ID:** ~~IR-4~~ DT-3 KE 07/19/18
Temp °C: 0.7 (corrected)	**Probe used:** Yes ☑ No ☐	

	YES	NO	NA
Adequate Sample Volume Received?	MMS		
Holding Time Acceptable?	MMS		
Shipping Container(s) Intact?	KE		
Shipping Custody Seals Intact?	KE		
Shipping Documentation Present?	KE		
Airbill — Trk # 7819 1833 5447	KE		
Sample Container Intact?	MMS		
Sample Custody Seals Intact?			MMS
Chain of Custody / Sample Documentation Present?	KE		
COC Anomaly/Sample Acceptance Form completed?		MMS	MMS

If Chlorinated or Drinking Water Samples, Acceptable Preservation?				MMS		
Preservation Documented:	$Na_2S_2O_3$	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:

EXTRACTION INFORMATION

RUSH

Process Sheet

Workorder: 1801824

7-DAY TAT

Prep Expiration: 2018-Aug-01
Client: CH2M Hill

Workorder Due: 26-Jul-18 00:00

TAT: 7

Method: **537 PFAS DW DoD Unmodified**
Matrix: **Aqueous**

Prep Batch: 38GC155

Prep Data Entered: WY 7/23/18
Date and Initials

Version: 537 (14 Analytes)
DoD: DoD QSM 5.1

Initial Sequence: ~~SG~~S8G0072

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1801824-01	A	☑	☑	CBD-1RW23-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-02		☑	☑	CBD-1FB23-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-03		☑	☑	CBD-1RW24-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-04		☑	☑	CBD-1FB24-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-05		☑	☑	CBD-1RW25-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-06		☑	☑	CBD-1FB25-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-07		☑	☑	CBD-1RW26-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-08		☑	☑	CBD-1FB26-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-09		☑	☑	CBD-1RW27-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-10		☑	☑	CBD-1FB27-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-11		☑	☑	CBD-1RW28-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-12		☑	☑	CBD-1FB28-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-13		☑	☑	CBD-1RW29-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-14		☑	☑	CBD-1FB29-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-15	B,C	☑	☑	CBD-1RW30-0718	**MS/MSD**	WR-2 E-3	HDPE Bottle, 250 mL
1801824-16		☑	☑	CBD-1FB30-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-17		☑	☑	CBD-1RW31-0718		WR-2 E-3	HDPE Bottle, 250 mL
1801824-18		☑	☑	CBD-1FB31-0718		WR-2 E-3	HDPE Bottle, 250 mL

Pre-Prep Check Out: KC 7/19/18
Pre-Prep Check In: KC 7/19/18

Prep Check Out: KC 7/20/18
Prep Check In: NA

Prep Reconciled Initals/Date: KC 7/19/18
Spike Reconciled Initals/Date: JR 7-20-18
VialBoxID: PURGE

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8G0155

Chemist: KC

Prep Date: 7/20/18

Prep Time: 8:45

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-10

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8G0155-BLK1 (A)	NA	NA	(0.250) ✓	KC OE 7/20/18	KC 7/20/18	KC FS 7/21/18
☐	B8G0155-BS1	↓	↓	↓ ✓	↓	↓	↓
☐	B8G0155-MS1 1801824-15	290.06	37.29	0.25277 ✓			
☐	B8G0155-MSD1 1801824-15	286.68	37.38	0.2493 ✓			
☐	1801824-01	274.50	37.45	0.23705 ✓			
☐	1801824-02	295.32	37.41	0.25791 ✓			
☐	1801824-03	288.27	37.43	0.25084 ✓			
☐	1801824-04	293.53	37.35	0.25618 ✓			
☐	1801824-05	292.43	37.38	~~0.24505~~ 0.25505 CAH ✓ 7/25/18			
☐	1801824-06	291.65	37.26	0.25439 ✓			
☐	1801824-07	291.12	37.44	0.25368			
☐	1801824-08	292.65	37.40	~~0.24525~~ 0.25525 CAH ✓ 7/25/18			
☐	1801824-09	289.88	37.37	0.25251 ✓			
☐	1801824-10	293.10	37.02	0.25608 ✓			
☐	1801824-11	292.18	37.36	0.25482 ✓			
☐	1801824-12	295.01	37.13	0.25788 ✓			

SS/IS: 18G0301, 20µL (V4)

NS: 18F2207, 20µL

IS/RS: 18G0302, 20µL (V4)

SPE Chem: Strata-X-AW 33µm 500mg/6mL
Lot#: 517-005969

Ele SOLV: MeOH
Lot#: JB072509

Final Volume(s) 1mL

Notes: (A) Trizma added. KC 7/19/18

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8G0155

Chemist: KC

Prep Date: 7/20/18

Prep Time: 8:45

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-10

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1801824-13	293.26	37.20	0.25606 ✓	KC AE 7/20/18	KC 7/20/18	KC 7/21/18
☐	1801824-14	290.14	37.47	0.25267 ✓	↓	↓	
☐	1801824-15	289.09	37.45	0.25164 ✓			
☐	1801824-16	288.68	37.32	0.25136 ✓			
☐	1801824-17	291.25	37.44	0.25381 ✓			
☐	1801824-18	295.70	37.64	0.25806 ✓			

SS/IS: 18G0301, 20µL (V4) NS: 18F2207, 20µL IS/RS: 18G0302, 20µL (V4)	SPE Chem: Strata-X-33µm 500mg/6mL Lot#: 517-005969 Ele SOLV: MeOH Lot#: JB072509 Final Volume(s) 1mL	Notes:

Comments: Assume 1 g = 1 mL
Centrifuged

Batch: B8G0155

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1801824-01	0.23705			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-02	0.25791			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-03	0.25084			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-04	0.25618			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-05	0.24505			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-06	0.25439			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-07	0.25368			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-08	0.24525			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-09	0.25251			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-10	0.25608			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-11	0.25482			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-12	0.25788			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-13	0.25606			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-14	0.25267			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-15	0.25164			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-16	0.25136			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-17	0.25381			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
1801824-18	0.25806			1000	20-Jul-18 08:45	KC			Drinking Water	537 PFAS DW DoD Unmoc
B8G0155-BLK1	0.25			1000	20-Jul-18 08:45	KC				QC
B8G0155-BS1	0.25			1000	20-Jul-18 08:45	KC	18F2207	20		QC
B8G0155-MS1	0.25277			1000	20-Jul-18 08:45	KC	18F2207	20		QC
B8G0155-MSD1	0.2493			1000	20-Jul-18 08:45	KC	18F2207	20		QC

ly 7/23/18

Printed: 7/21/2018 12:04:35PM

SAMPLE DATA –EPA METHOD 537

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-41.qld

Last Altered: Wednesday, July 25, 2018 12:18:00 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:18:44 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_41, Date: 24-Jul-2018, Time: 21:44:26, ID: B8G0155-BLK1 LRB 0.25, Description: LRB

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.18e4	0.250		2.90				
2	2	PFHxA	312.7 > 268.8	4.14e1	7.55e3	0.250		3.30	3.27	0.0549	0.270	
3	3	PFHpA	362.7 > 318.8		7.55e3	0.250		3.82				
4	4	PFHxS	398.7 > 80.7		1.18e4	0.250		3.92				
5	5	PFOA	412.8 > 369.0	1.39e1	7.55e3	0.250		4.24	4.24	0.0184	0.101	
6	6	PFNA	462.9 > 419.1		7.55e3	0.250		4.60				
7	7	PFOS	498.8 >80.7		1.18e4	0.250		4.64				
8	8	PFDA	512.8 > 469.0	2.81e1	7.55e3	0.250		4.89	4.88	0.0372	0.171	
9	9	N-MeFOSAA	569.7 > 419.0	1.18e0	1.30e4	0.250		5.00	4.99	0.00361	0.0125	
10	10	N-EtFOSAA	583.6 >419.1		1.30e4	0.250		5.11				
11	11	PFUnA	562.7 > 518.9		7.55e3	0.250		5.13				
12	12	PFDoA	612.5 > 319.0		7.55e3	0.250		5.37				
13	13	PFTrDA	662.4 > 618.7		7.55e3	0.250		5.58				
14	14	PFTeDA	712.2>668.4		7.55e3	0.250		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	5.66e3	7.55e3	0.250	0.753	3.40	3.27	7.50	39.9	99.7
16	16	13C2-PFDA	514.8 > 470.0	7.76e3	7.55e3	0.250	1.023	4.83	4.88	10.3	40.2	100.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.52e4	1.30e4	0.250	1.264	4.99	5.11	46.7	148	92.3
18	18	13C2-PFOA	414.8 > 370.1	7.55e3	7.55e3	0.250	1.000	4.28	4.24	10.0	40.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.18e4	1.18e4	0.250	1.000	4.71	4.64	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.30e4	1.30e4	0.250	1.000	5.04	4.99	40.0	160	100.0

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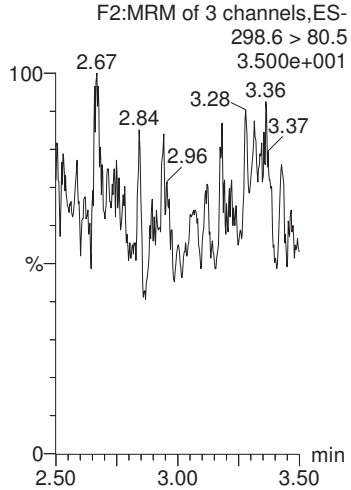
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-41.qld

Last Altered: Wednesday, July 25, 2018 12:18:00 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:18:44 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_41, Date: 24-Jul-2018, Time: 21:44:26, ID: B8G0155-BLK1 LRB 0.25, Description: LRB

PFBS



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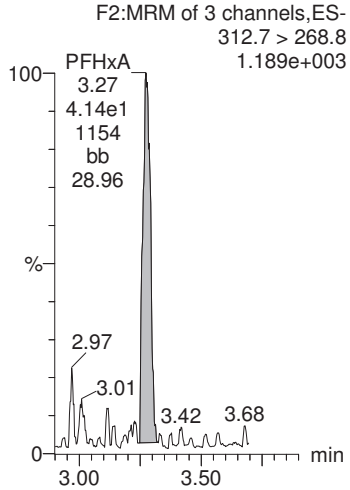

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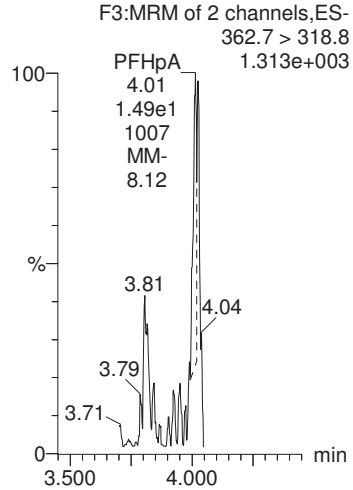
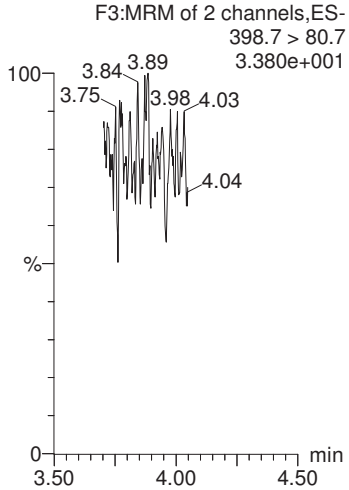
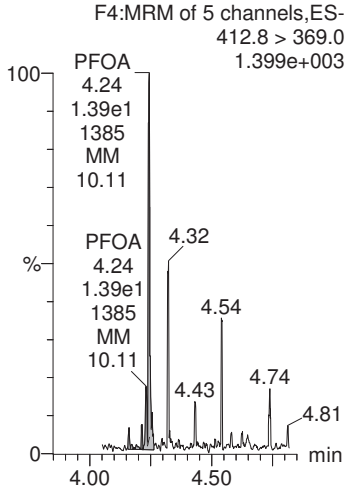


PFHxS



PFOA



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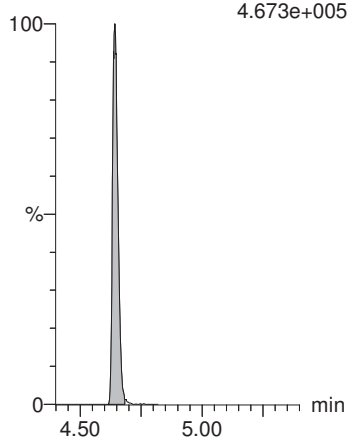

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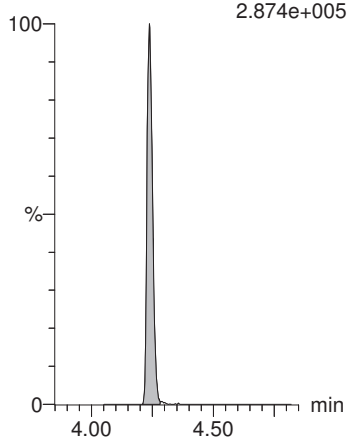

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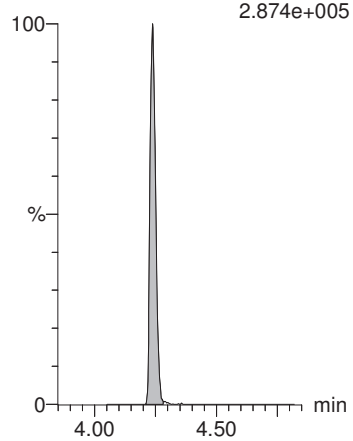

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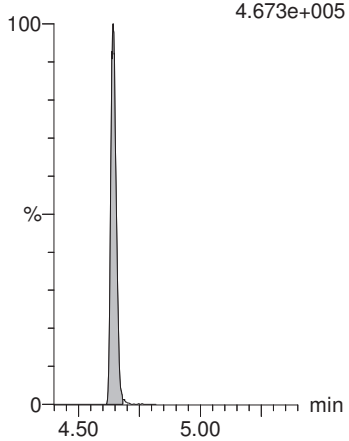

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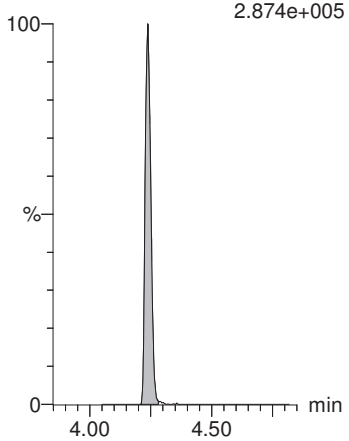

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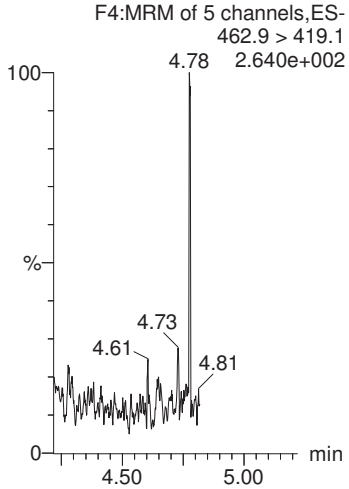
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-41.qld

Last Altered: Wednesday, July 25, 2018 12:18:00 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:18:44 Pacific Daylight Time

Name: 180724G5_41, Date: 24-Jul-2018, Time: 21:44:26, ID: B8G0155-BLK1 LRB 0.25, Description: LRB

PFNA



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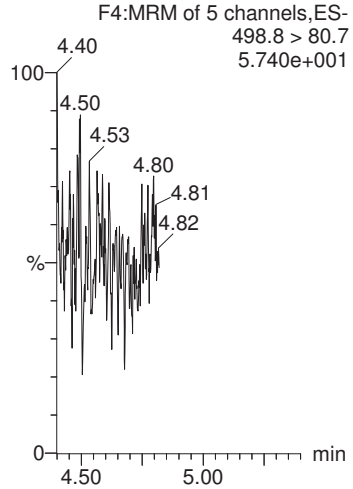

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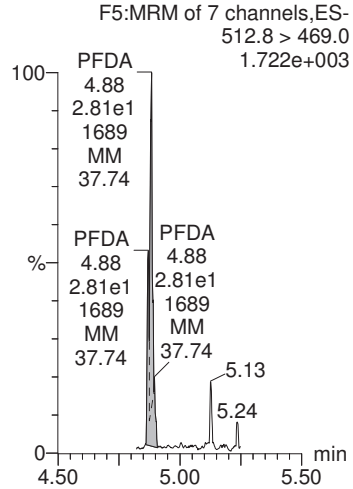
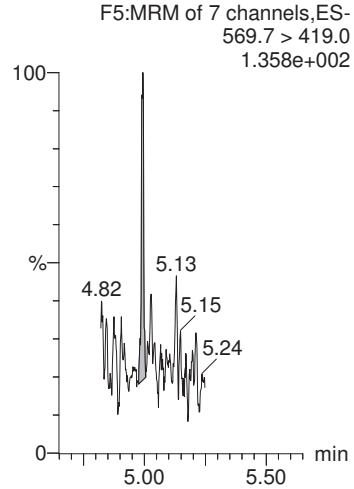


N-MeFOSAA



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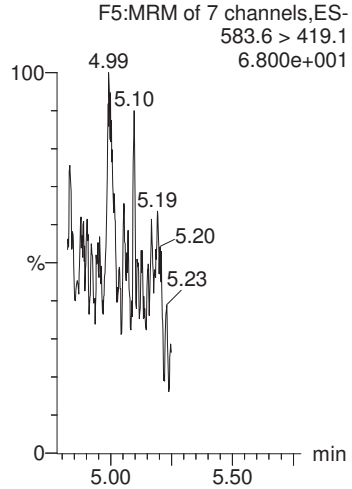

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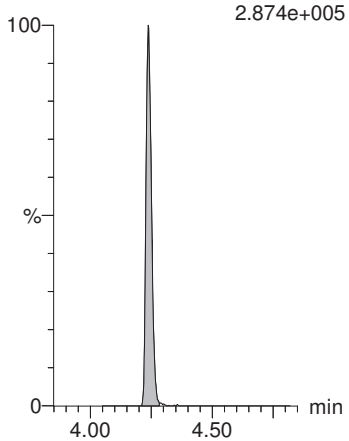

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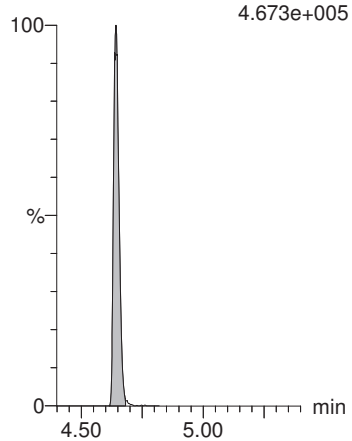

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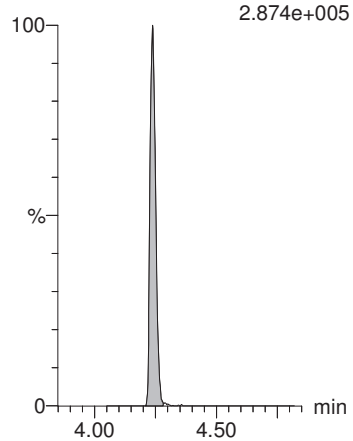

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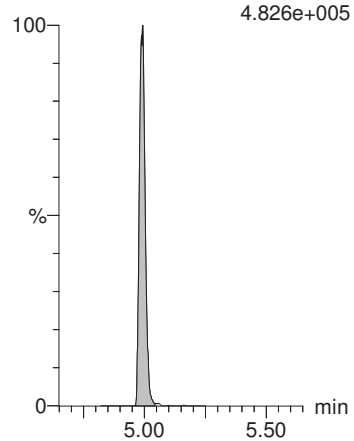

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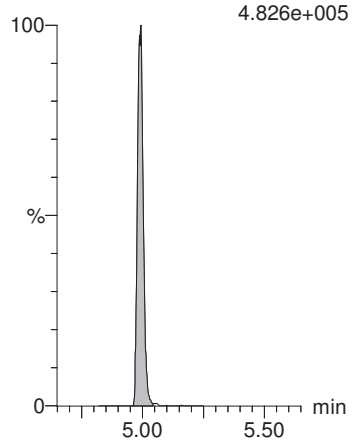

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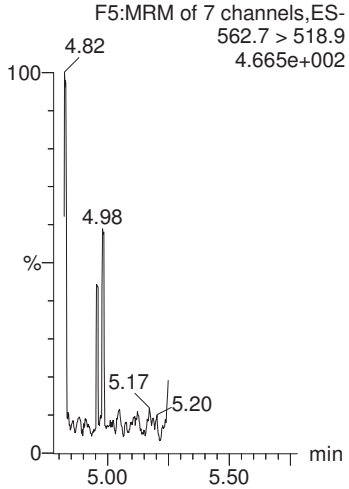
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-41.qld

Last Altered: Wednesday, July 25, 2018 12:18:00 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:18:44 Pacific Daylight Time

Name: 180724G5_41, Date: 24-Jul-2018, Time: 21:44:26, ID: B8G0155-BLK1 LRB 0.25, Description: LRB

PFUnA



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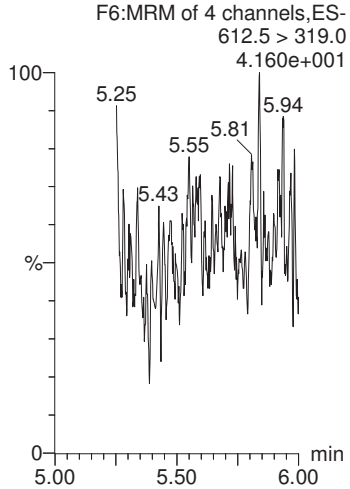

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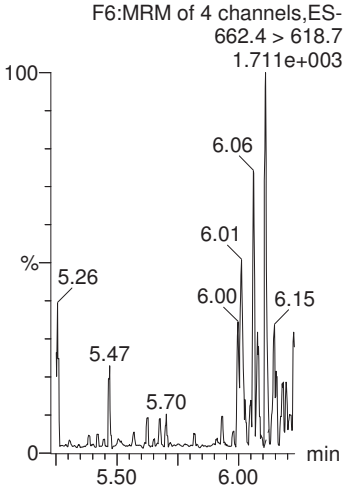
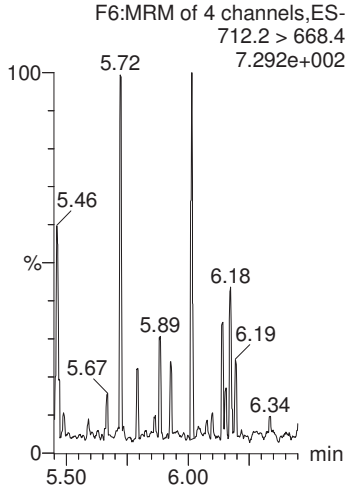


PFTeDA



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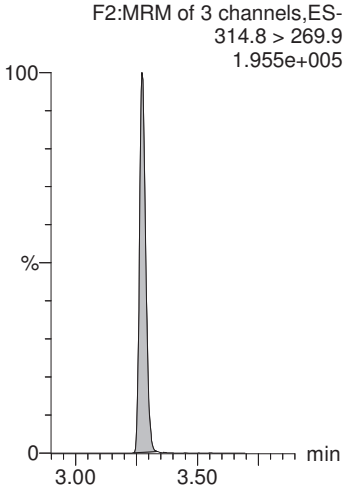

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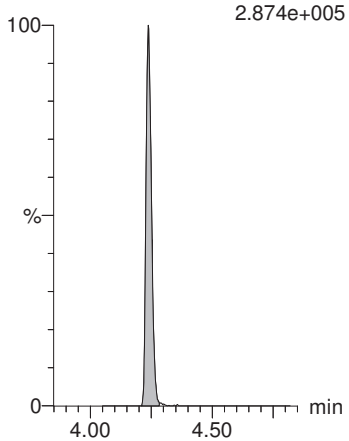

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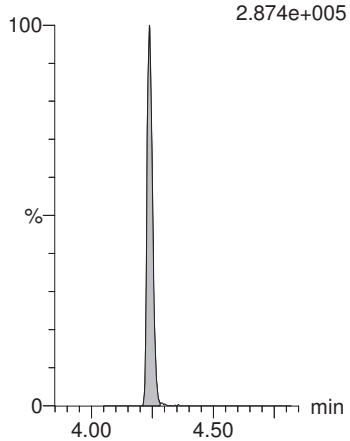

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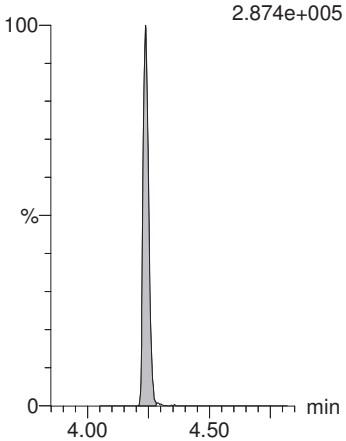

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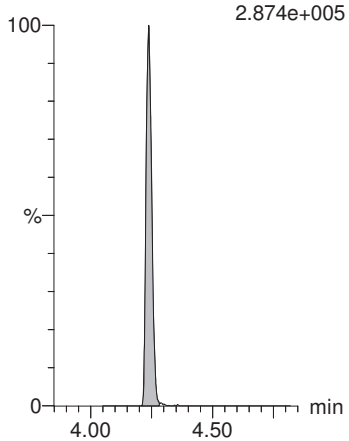

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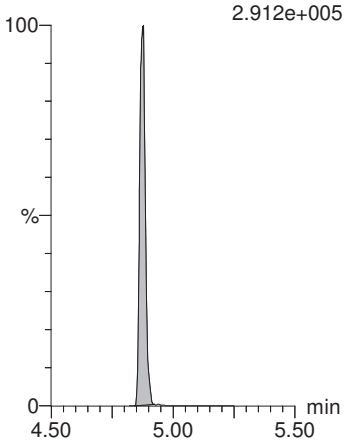

CGH 7/25/2018

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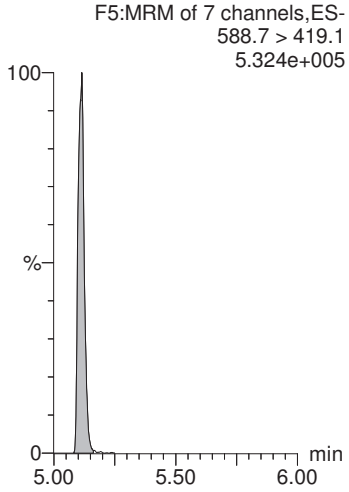
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-41.qld

Last Altered: Wednesday, July 25, 2018 12:18:00 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:18:44 Pacific Daylight Time

Name: 180724G5_41, Date: 24-Jul-2018, Time: 21:44:26, ID: B8G0155-BLK1 LRB 0.25, Description: LRB

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-42.qld

Last Altered: Wednesday, July 25, 2018 12:11:14 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:12:48 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_42, Date: 24-Jul-2018, Time: 21:57:15, ID: B8G0155-BS1 LFB 0.25, Description: LFB

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.45e3	1.10e4	0.250		2.90	2.90	3.80	16.0	90.1
2	2	PFHxA	312.7 > 268.8	2.61e3	6.91e3	0.250		3.30	3.28	3.78	18.6	93.0
3	3	PFHpA	362.7 > 318.8	2.95e3	6.91e3	0.250		3.81	3.82	4.26	19.5	97.3
4	4	PFHxS	398.7 > 80.7	1.56e3	1.10e4	0.250		3.92	3.94	4.10	14.5	79.6
5	5	PFOA	412.8 > 369.0	2.40e3	6.91e3	0.250		4.24	4.24	3.47	19.1	95.3
6	6	PFNA	462.9 > 419.1	2.82e3	6.91e3	0.250		4.60	4.58	4.08	18.7	93.7
7	7	PFOS	498.8 >80.7	5.05e2	1.10e4	0.250		4.64	4.64	1.32	14.3	77.3
8	8	PFDA	512.8 > 469.0	2.80e3	6.91e3	0.250		4.88	4.87	4.06	18.6	93.1
9	9	N-MeFOSAA	569.7 > 419.0	1.48e3	1.23e4	0.250		5.00	5.00	4.79	16.6	82.8
10	10	N-EtFOSAA	583.6 >419.1	1.22e3	1.23e4	0.250		5.11	5.12	3.95	15.8	79.2
11	11	PFUnA	562.7 > 518.9	3.08e3	6.91e3	0.250		5.12	5.12	4.46	18.6	92.9
12	12	PFDoA	612.5 > 319.0	5.02e2	6.91e3	0.250		5.36	5.36	0.727	19.8	98.9
13	13	PFTrDA	662.4 > 618.7	2.86e3	6.91e3	0.250		5.57	5.58	4.14	18.4	91.8
14	14	PFTeDA	712.2>668.4	3.05e3	6.91e3	0.250		5.76	5.76	4.41	19.0	95.1
15	15	13C2-PFHxA	314.8 > 269.9	5.34e3	6.91e3	0.250	0.753	3.40	3.27	7.73	41.1	102.7
16	16	13C2-PFDA	514.8 > 470.0	7.24e3	6.91e3	0.250	1.023	4.83	4.88	10.5	40.9	102.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.46e4	1.23e4	0.250	1.264	4.99	5.11	47.4	150	93.7
18	18	13C2-PFOA	414.8 > 370.1	6.91e3	6.91e3	0.250	1.000	4.28	4.23	10.0	40.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.10e4	1.10e4	0.250	1.000	4.71	4.64	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.23e4	1.23e4	0.250	1.000	5.04	4.99	40.0	160	100.0

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Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-42.qld

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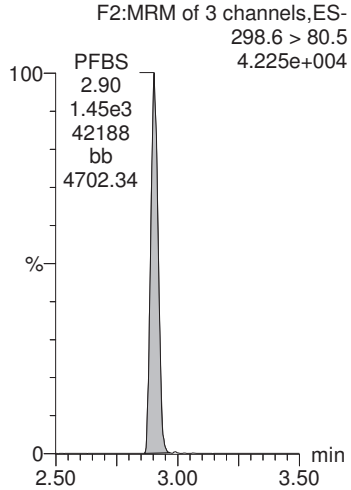
Printed: Wednesday, July 25, 2018 12:12:48 Pacific Daylight Time

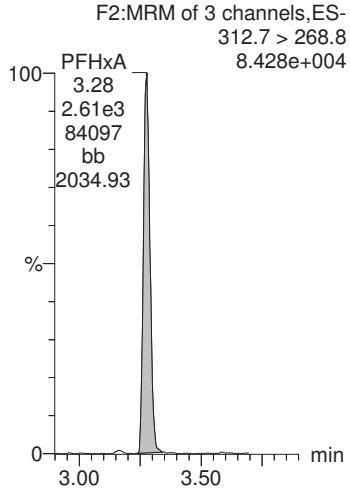
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_42, Date: 24-Jul-2018, Time: 21:57:15, ID: B8G0155-BS1 LFB 0.25, Description: LFB

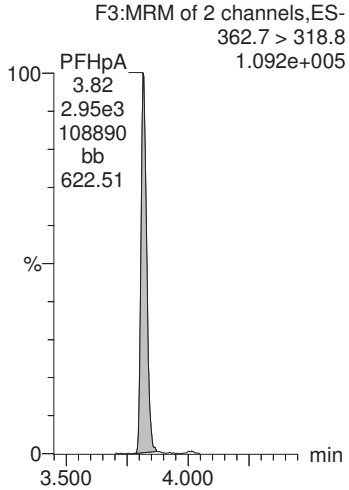
PFBS



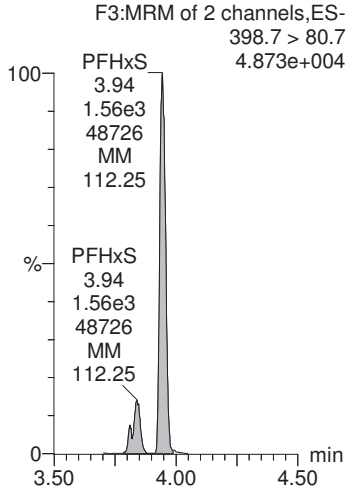
PFHxA



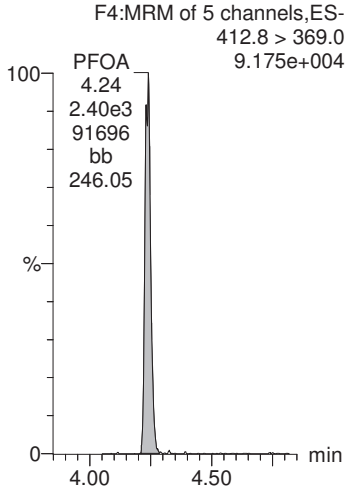
PFHpA



PFHxS



PFOA



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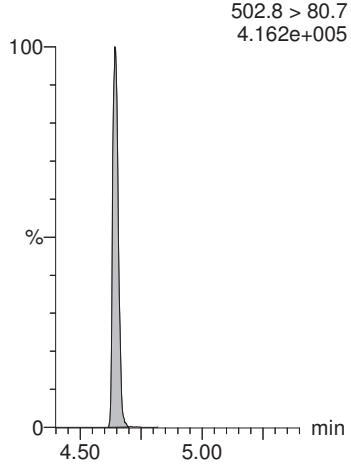

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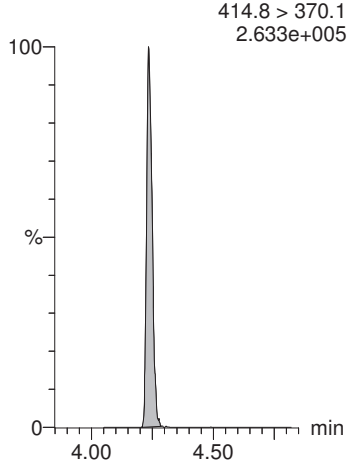

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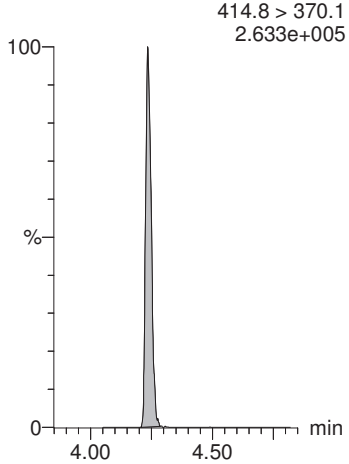

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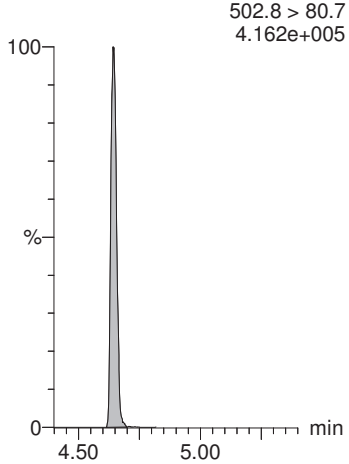

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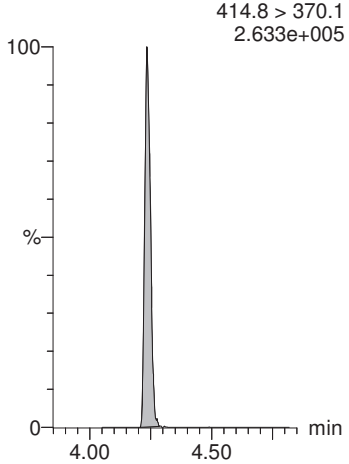

CGH 7/25/2018

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Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-42.qld

Last Altered: Wednesday, July 25, 2018 12:11:14 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:12:48 Pacific Daylight Time

Name: 180724G5_42, Date: 24-Jul-2018, Time: 21:57:15, ID: B8G0155-BS1 LFB 0.25, Description: LFB

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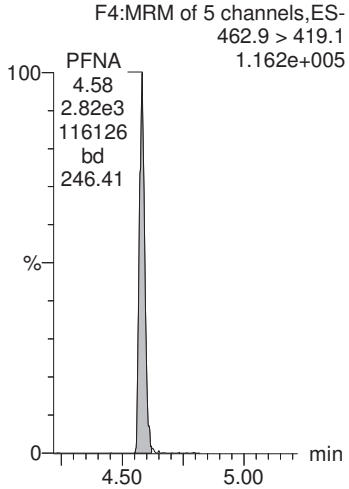

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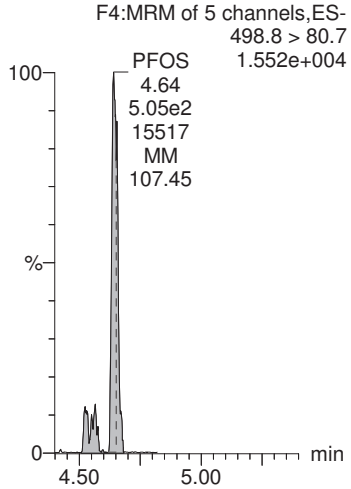

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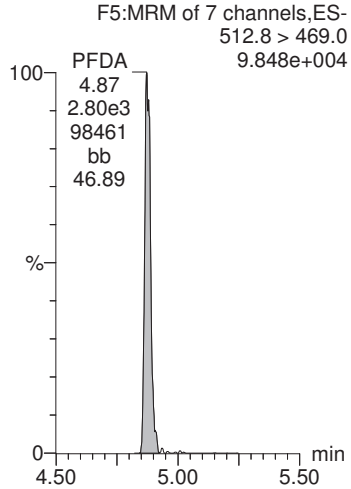

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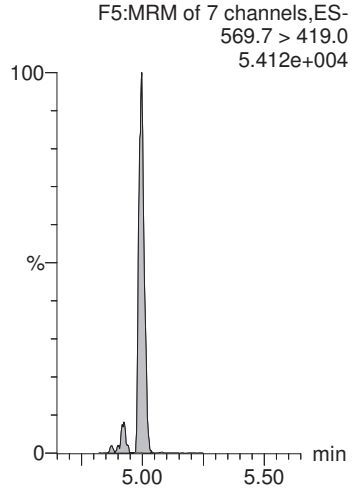

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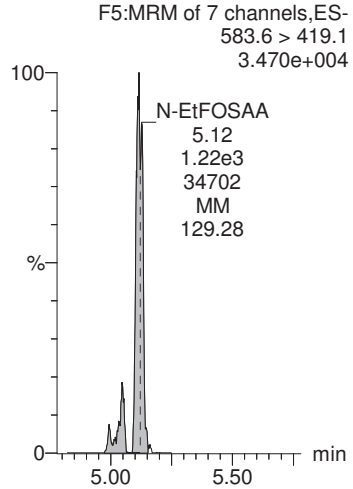

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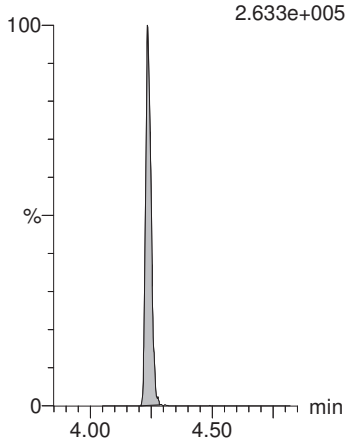

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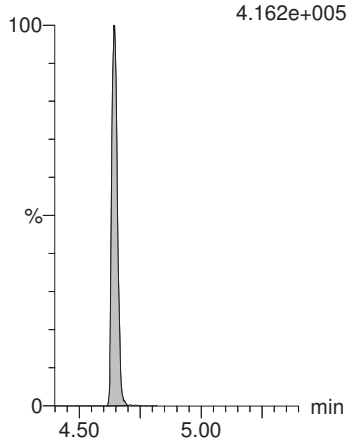

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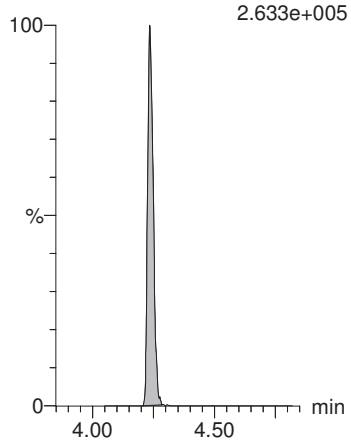

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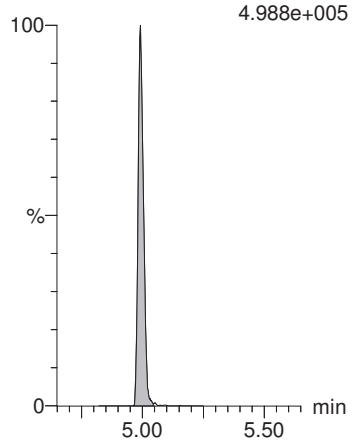

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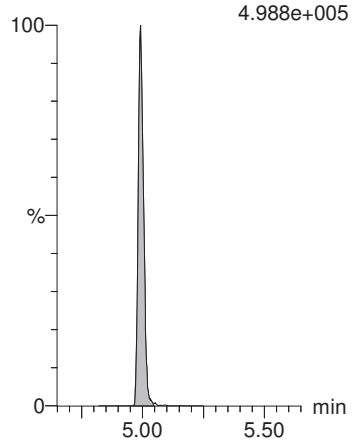

CGH 7/25/2018

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-42.qld

Last Altered: Wednesday, July 25, 2018 12:11:14 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:12:48 Pacific Daylight Time

Name: 180724G5_42, Date: 24-Jul-2018, Time: 21:57:15, ID: B8G0155-BS1 LFB 0.25, Description: LFB

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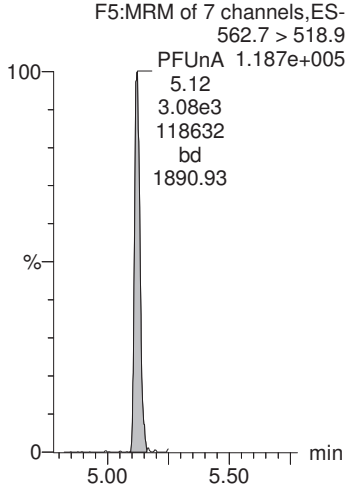

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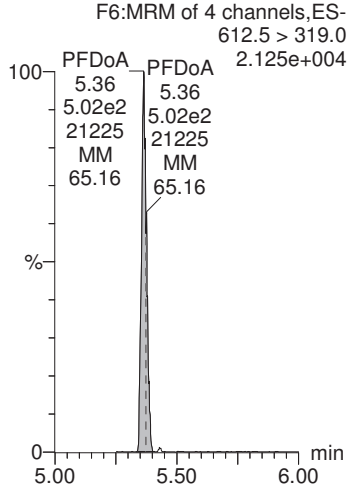

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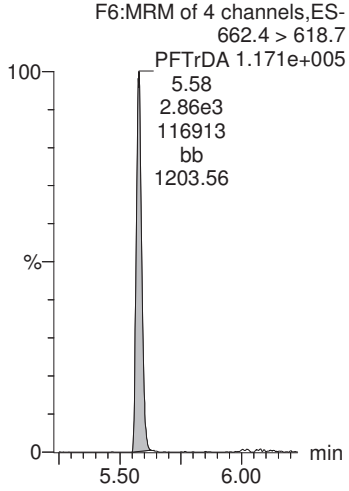

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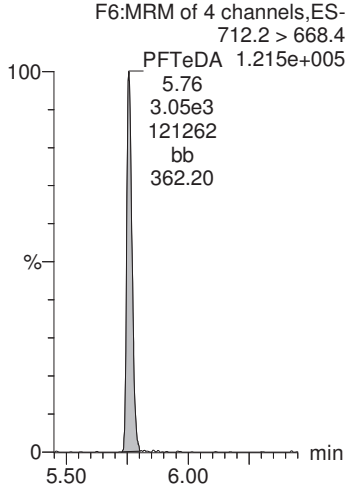

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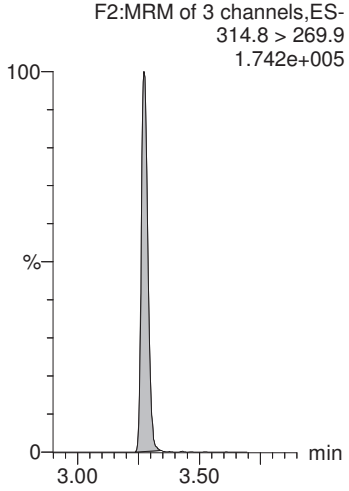

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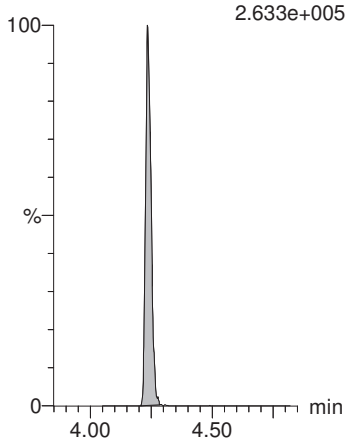

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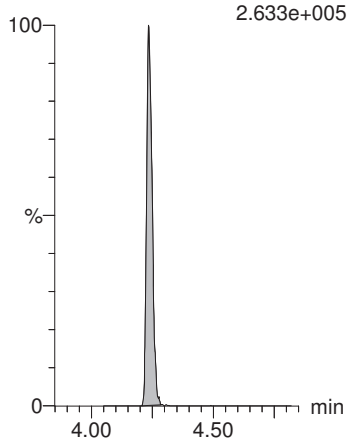

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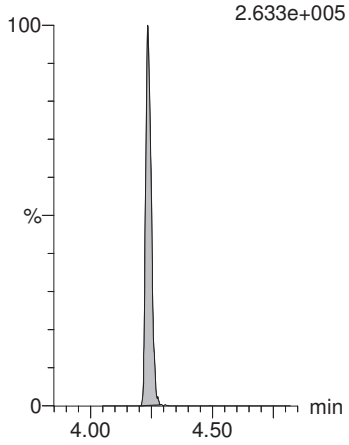

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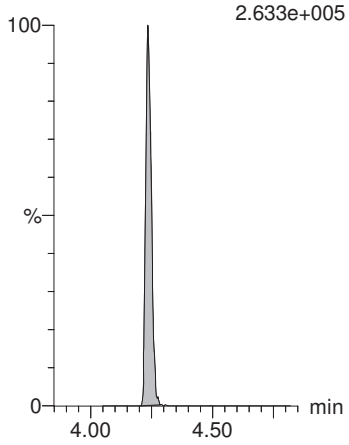

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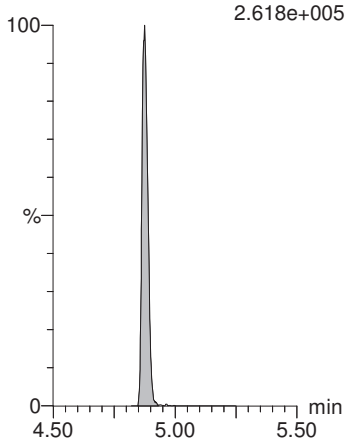


CGH 7/25/2018

Vista Analytical Laboratory

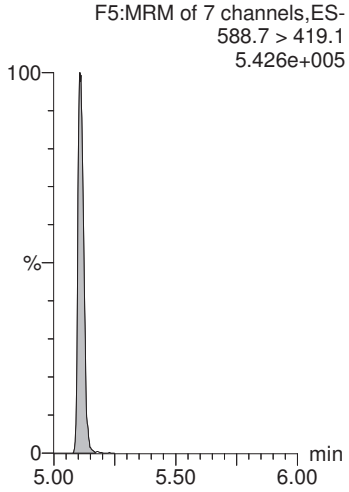
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-42.qld

Last Altered: Wednesday, July 25, 2018 12:11:14 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:12:48 Pacific Daylight Time

Name: 180724G5_42, Date: 24-Jul-2018, Time: 21:57:15, ID: B8G0155-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-45.qld

Last Altered: Wednesday, July 25, 2018 13:24:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:38:21 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_45, Date: 24-Jul-2018, Time: 22:35:40, ID: 1801824-01 CBD-1RW23-0718 0.23705, Description: CBD-1RW23-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	6.87e0	1.20e4	0.237		2.90	2.91	0.0164	0.0729	
2	2	PFHxA	312.7 > 268.8	4.33e1	8.41e3	0.237		3.30	3.27	0.0514	0.267	
3	3	PFHpA	362.7 > 318.8	2.09e1	8.41e3	0.237		3.81	3.81	0.0249	0.120	
4	4	PFHxS	398.7 > 80.7		1.20e4	0.237		3.92				
5	5	PFOA	412.8 > 369.0	1.35e1	8.41e3	0.237		4.24	4.24	0.0161	0.0929	
6	6	PFNA	462.9 > 419.1	3.84e0	8.41e3	0.237		4.60	4.25	0.00457	0.0221	
7	7	PFOS	498.8 >80.7		1.20e4	0.237		4.64				
8	8	PFDA	512.8 > 469.0	1.12e1	8.41e3	0.237		4.88	4.87	0.0133	0.0644	
9	9	N-MeFOSAA	569.7 > 419.0		1.42e4	0.237		5.00				
10	10	N-EtFOSAA	583.6 >419.1		1.42e4	0.237		5.12				
11	11	PFUnA	562.7 > 518.9		8.41e3	0.237		5.12				
12	12	PFDoA	612.5 > 319.0		8.41e3	0.237		5.36				
13	13	PFTrDA	662.4 > 618.7		8.41e3	0.237		5.57				
14	14	PFTeDA	712.2>668.4		8.41e3	0.237		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	6.22e3	8.41e3	0.237	0.753	3.40	3.27	7.39	41.4	98.2
16	16	13C2-PFDA	514.8 > 470.0	8.58e3	8.41e3	0.237	1.023	4.83	4.88	10.2	42.1	99.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.62e4	1.42e4	0.237	1.264	5.00	5.11	45.7	152	90.3
18	18	13C2-PFOA	414.8 > 370.1	8.41e3	8.41e3	0.237	1.000	4.28	4.24	10.0	42.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.20e4	1.20e4	0.237	1.000	4.71	4.64	28.7	121	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.42e4	1.42e4	0.237	1.000	5.04	5.00	40.0	169	100.0

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-45.qld

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_45, Date: 24-Jul-2018, Time: 22:35:40, ID: 1801824-01 CBD-1RW23-0718 0.23705, Description: CBD-1RW23-0718

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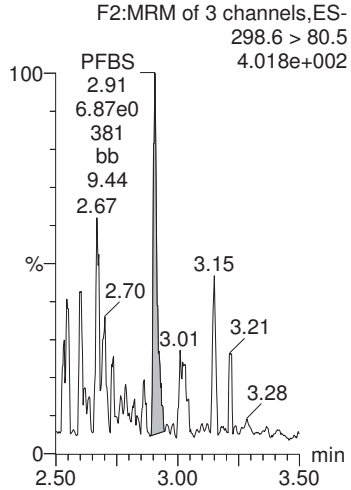

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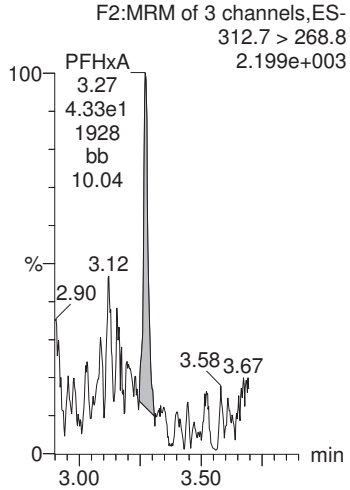

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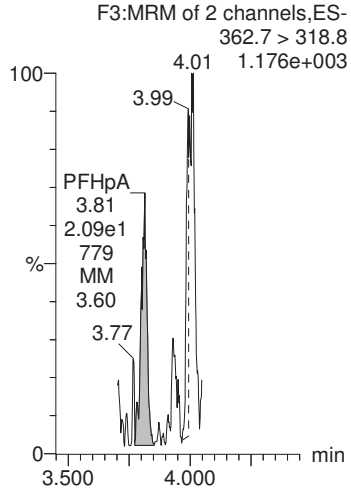

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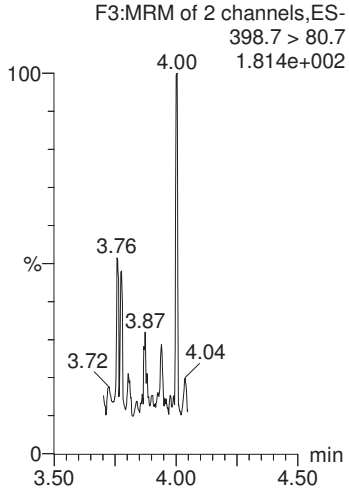

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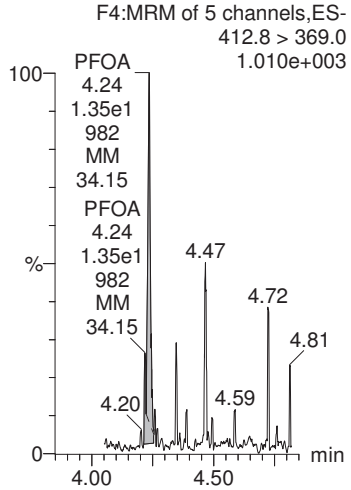

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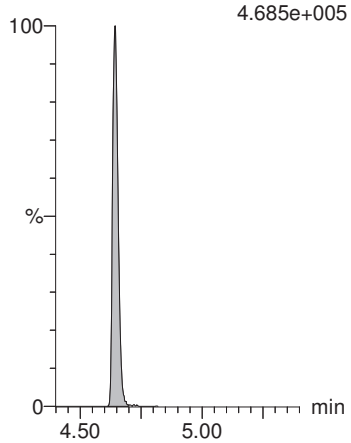

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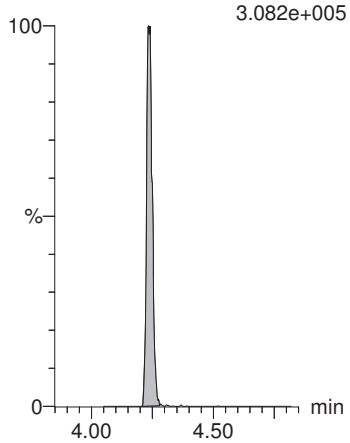

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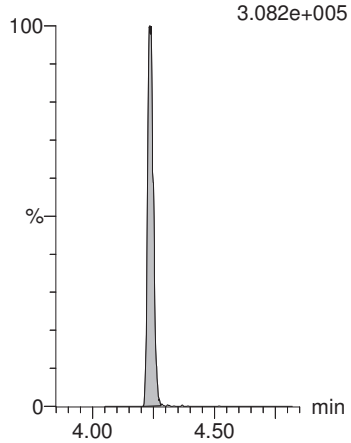

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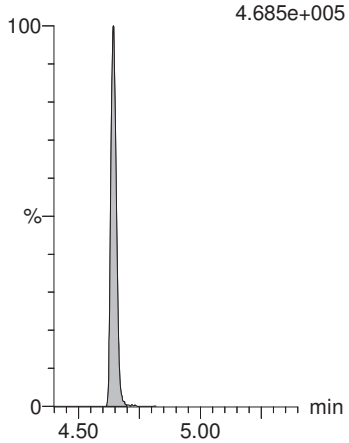

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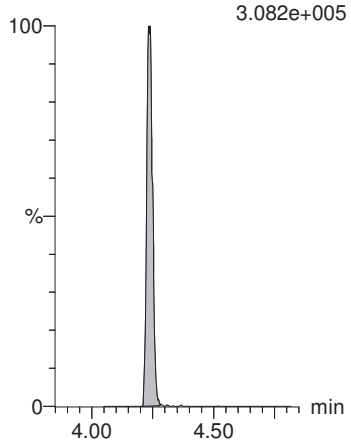

CGH 7/25/2018

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Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-45.qld

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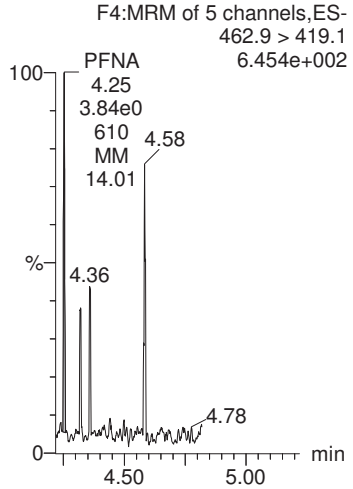

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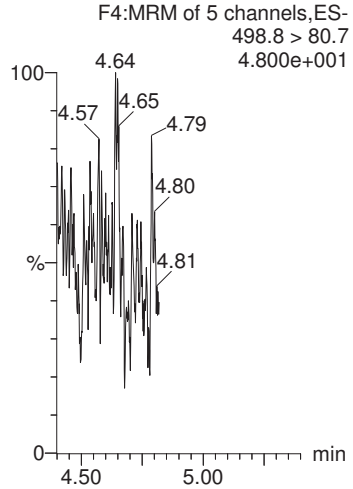

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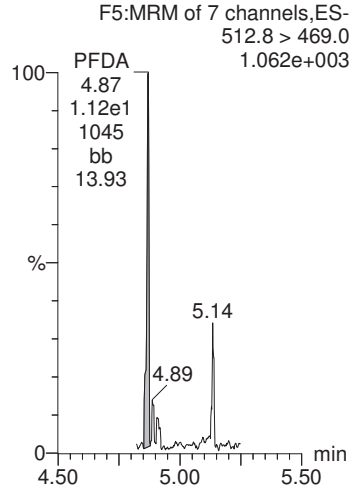

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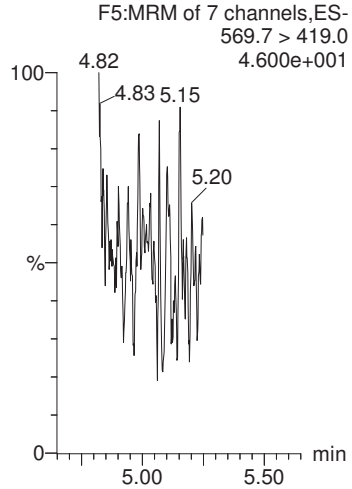

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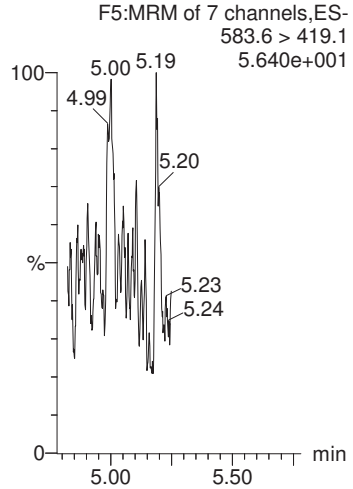

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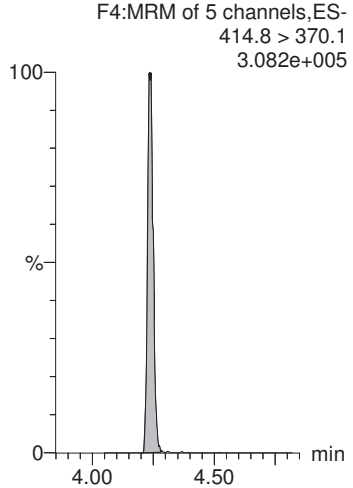

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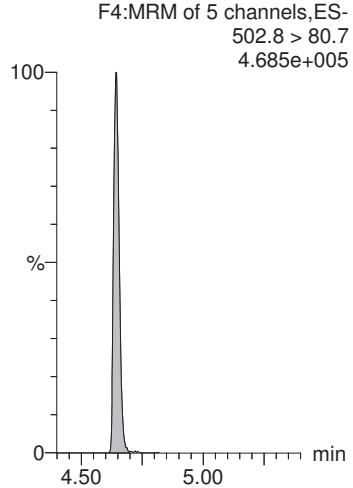
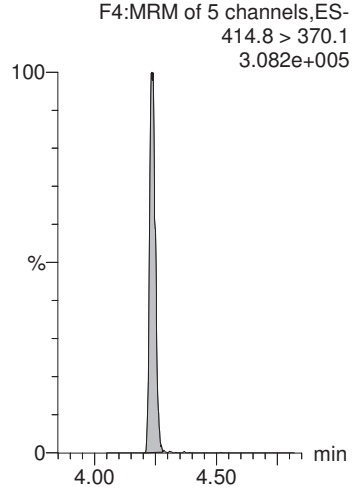
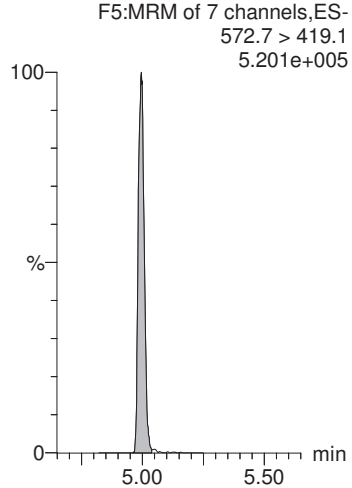


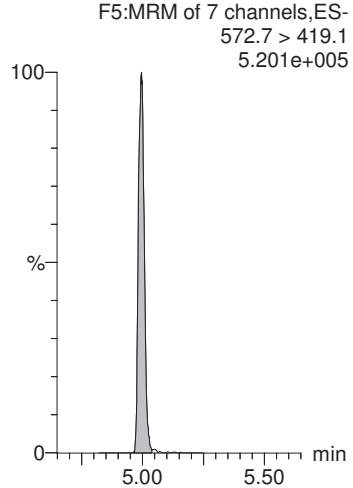
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



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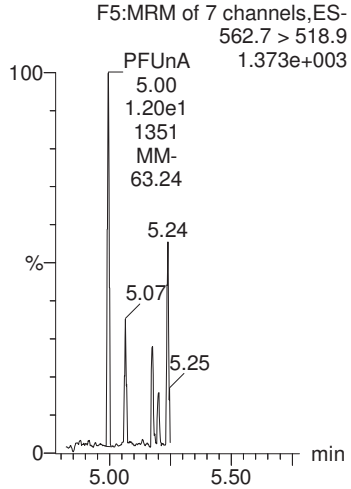
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-45.qld

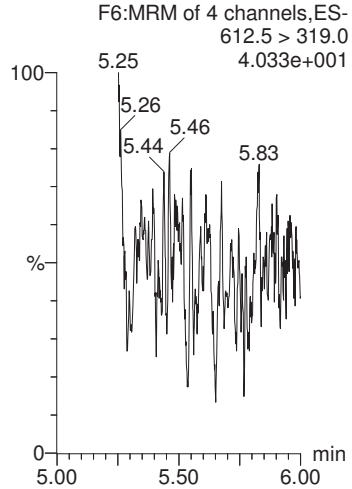
Last Altered: Wednesday, July 25, 2018 13:24:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:38:21 Pacific Daylight Time

Name: 180724G5_45, Date: 24-Jul-2018, Time: 22:35:40, ID: 1801824-01 CBD-1RW23-0718 0.23705, Description: CBD-1RW23-0718

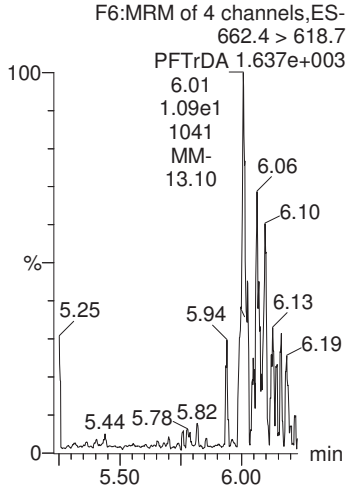
PFUnA



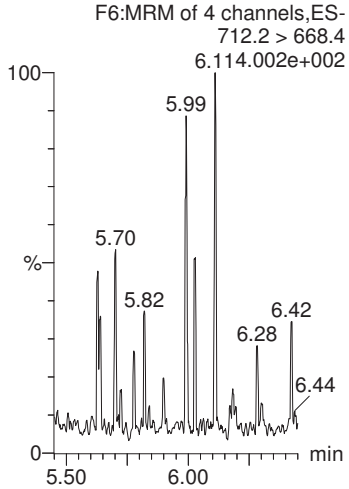
PFDoA



PFTrDA



PFTeDA



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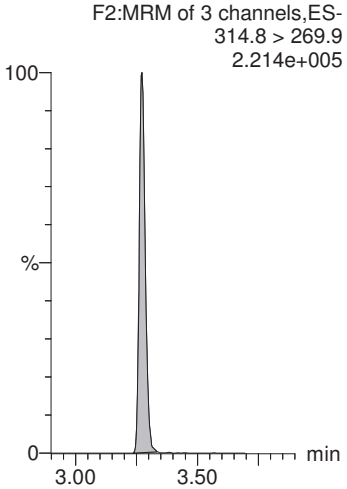

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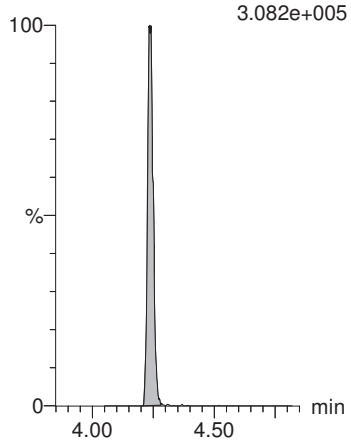

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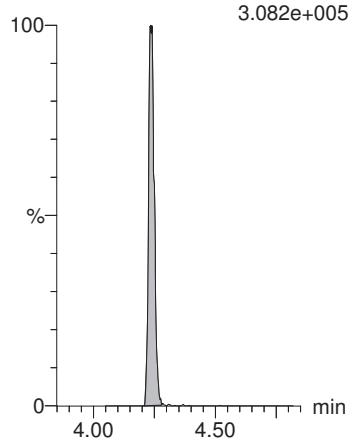

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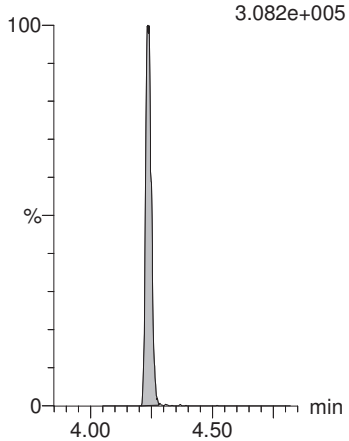

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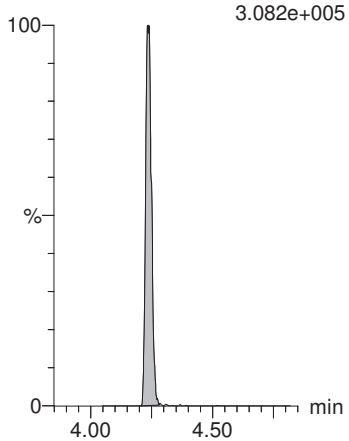

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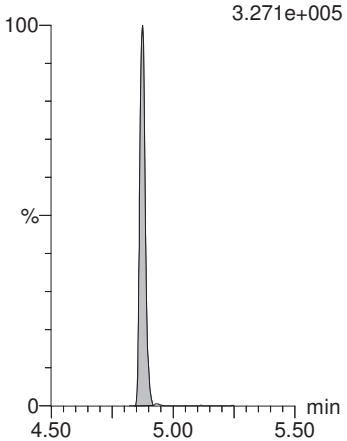


CGH 7/25/2018

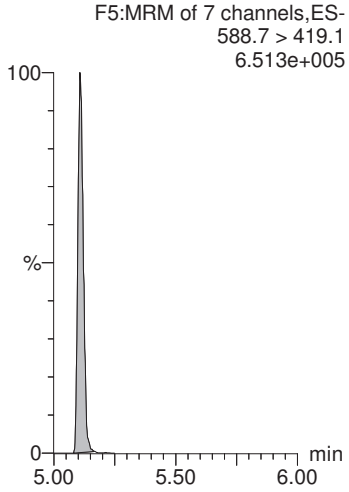
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-45.qld

Last Altered: Wednesday, July 25, 2018 13:24:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:38:21 Pacific Daylight Time

Name: 180724G5_45, Date: 24-Jul-2018, Time: 22:35:40, ID: 1801824-01 CBD-1RW23-0718 0.23705, Description: CBD-1RW23-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-46.qld

Last Altered: Wednesday, July 25, 2018 13:41:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:42:54 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_46, Date: 24-Jul-2018, Time: 22:48:29, ID: 1801824-02 CBD-1FB23-0718 0.25791, Description: CBD-1FB23-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.35e4	0.258		2.90				
2	2	PFHxA	312.7 > 268.8	6.08e1	8.63e3	0.258		3.30	3.27	0.0704	0.336	
3	3	PFHpA	362.7 > 318.8		8.63e3	0.258		3.81				
4	4	PFHxS	398.7 > 80.7		1.35e4	0.258		3.92				
5	5	PFOA	412.8 > 369.0	1.54e1	8.63e3	0.258		4.24	4.23	0.0178	0.0947	
6	6	PFNA	462.9 > 419.1		8.63e3	0.258		4.60				
7	7	PFOS	498.8 >80.7		1.35e4	0.258		4.64				
8	8	PFDA	512.8 > 469.0		8.63e3	0.258		4.88				
9	9	N-MeFOSAA	569.7 > 419.0		1.43e4	0.258		5.00				
10	10	N-EtFOSAA	583.6 >419.1		1.43e4	0.258		5.11				
11	11	PFUnA	562.7 > 518.9		8.63e3	0.258		5.12				
12	12	PFDoA	612.5 > 319.0		8.63e3	0.258		5.36				
13	13	PFTrDA	662.4 > 618.7		8.63e3	0.258		5.57				
14	14	PFTeDA	712.2>668.4		8.63e3	0.258		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	6.41e3	8.63e3	0.258	0.753	3.40	3.27	7.43	38.3	98.7
16	16	13C2-PFDA	514.8 > 470.0	8.54e3	8.63e3	0.258	1.023	4.83	4.87	9.89	37.5	96.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.77e4	1.43e4	0.258	1.264	4.99	5.11	49.6	152	98.1
18	18	13C2-PFOA	414.8 > 370.1	8.63e3	8.63e3	0.258	1.000	4.28	4.23	10.0	38.8	100.0
19	19	13C4-PFOS	502.8>80.7	1.35e4	1.35e4	0.258	1.000	4.71	4.64	28.7	111	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.43e4	1.43e4	0.258	1.000	5.04	4.99	40.0	155	100.0

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Vista Analytical Laboratory

MMM 7/25/2018

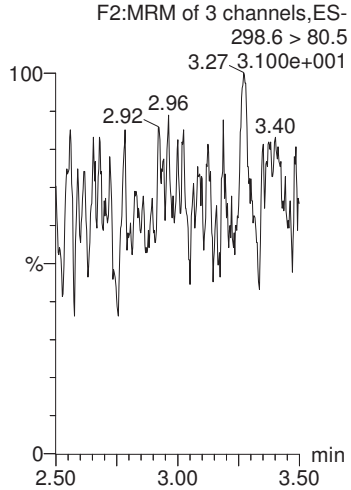
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-46.qld

Last Altered: Wednesday, July 25, 2018 13:41:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:42:54 Pacific Daylight Time

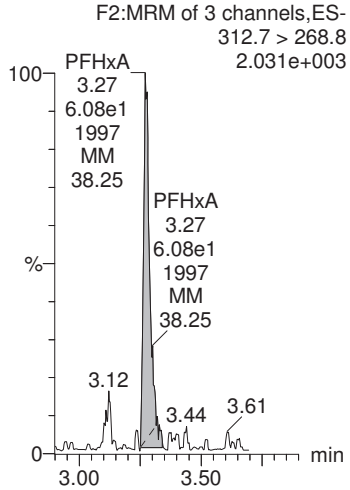
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_46, Date: 24-Jul-2018, Time: 22:48:29, ID: 1801824-02 CBD-1FB23-0718 0.25791, Description: CBD-1FB23-0718

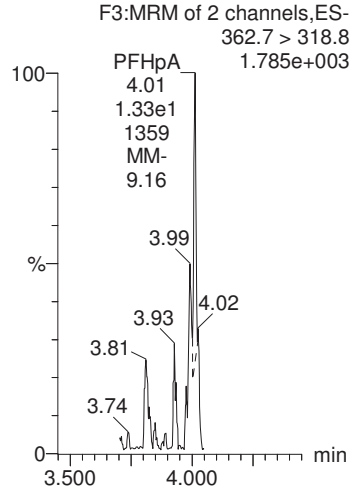
PFBS



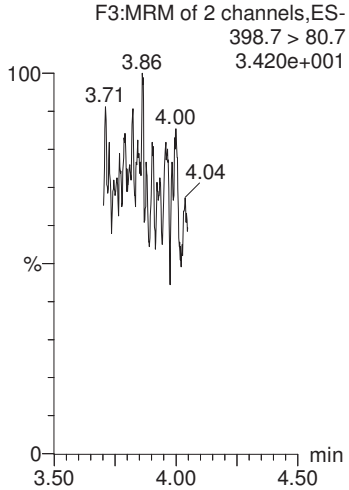
PFHxA



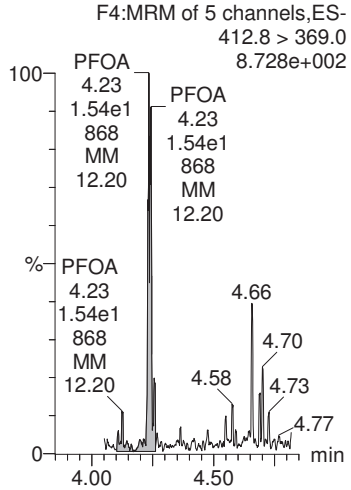
PFHpA



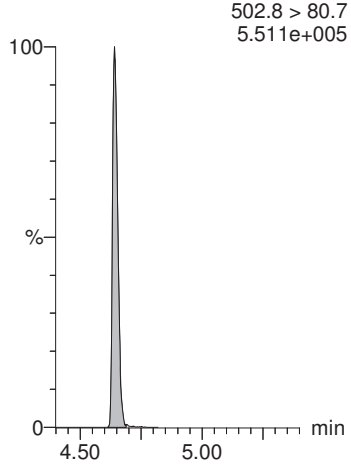
PFHxS



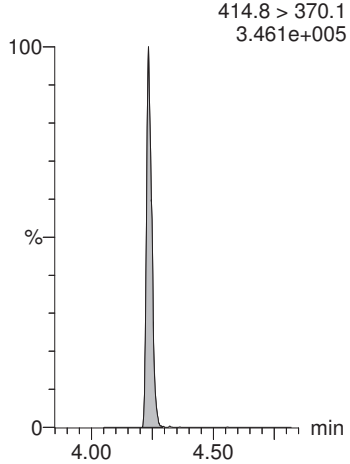
PFOA



13C4-PFOS



13C2-PFOA



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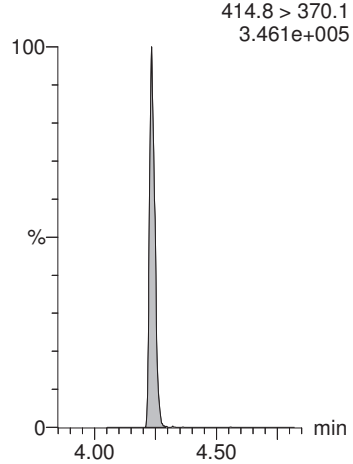

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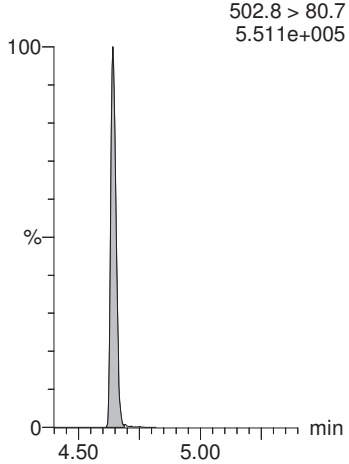

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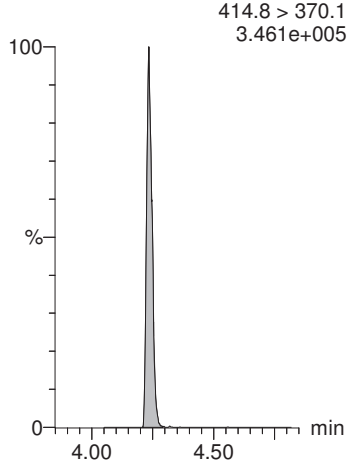


CGH 7/25/2018

Vista Analytical Laboratory

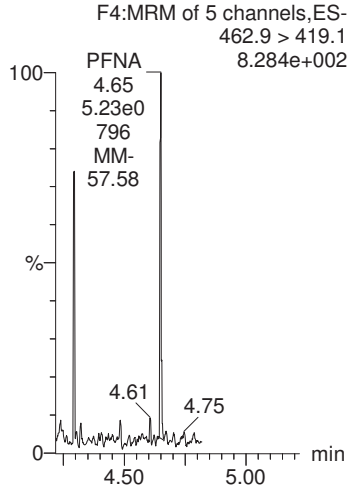
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-46.qld

Last Altered: Wednesday, July 25, 2018 13:41:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:42:54 Pacific Daylight Time

Name: 180724G5_46, Date: 24-Jul-2018, Time: 22:48:29, ID: 1801824-02 CBD-1FB23-0718 0.25791, Description: CBD-1FB23-0718

PFNA



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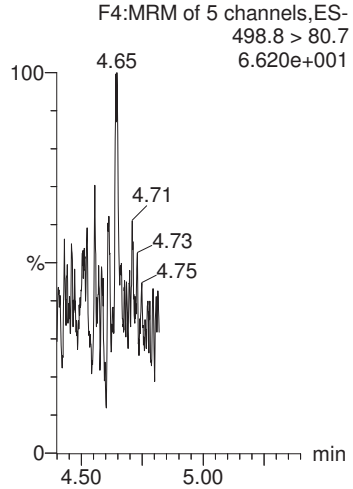

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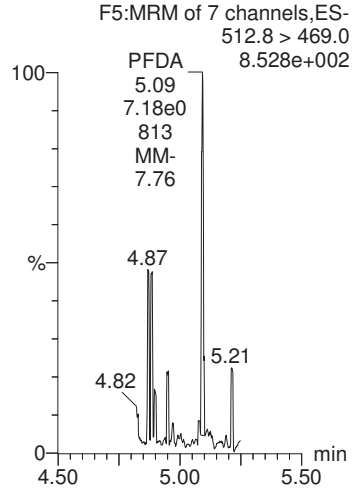
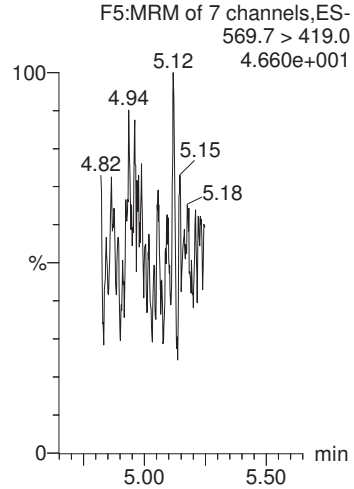
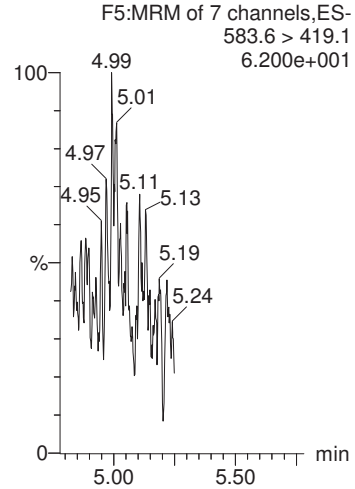


N-MeFOSAA



N-EtFOSAA



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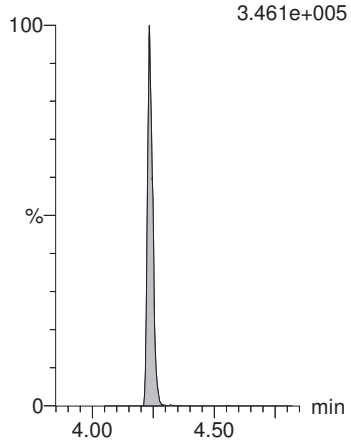

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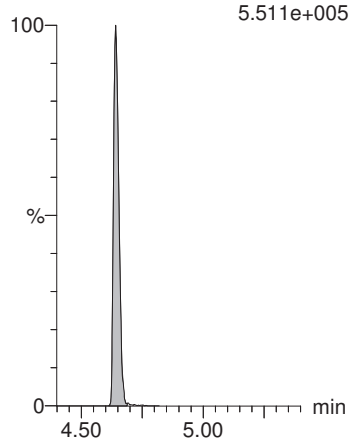

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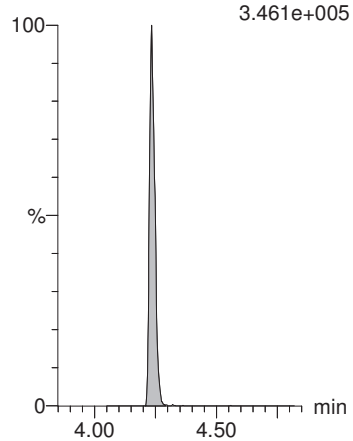

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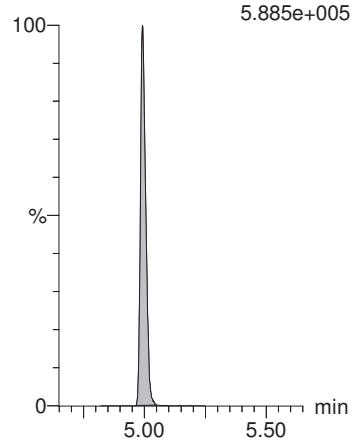

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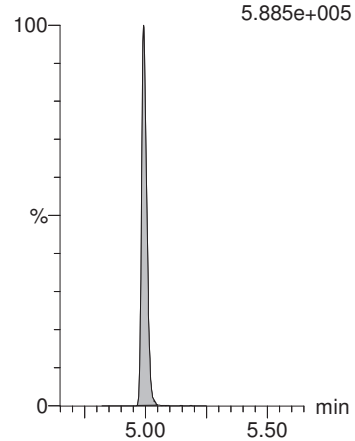

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-46.qld

Last Altered: Wednesday, July 25, 2018 13:41:59 Pacific Daylight Time
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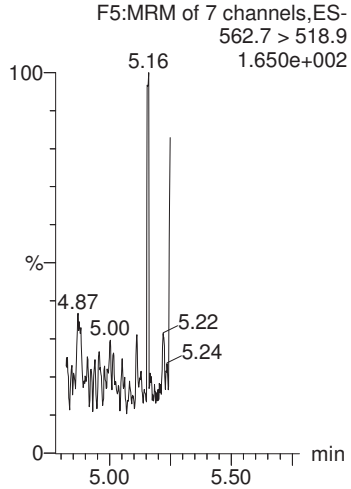
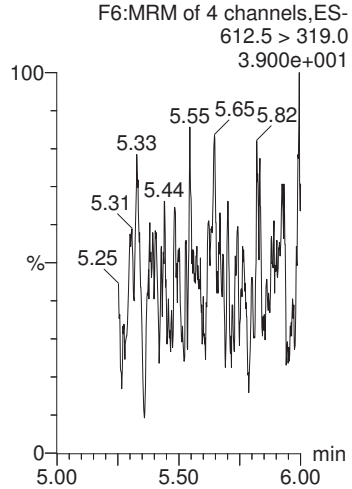
Name: 180724G5_46, Date: 24-Jul-2018, Time: 22:48:29, ID: 1801824-02 CBD-1FB23-0718 0.25791, Description: CBD-1FB23-0718

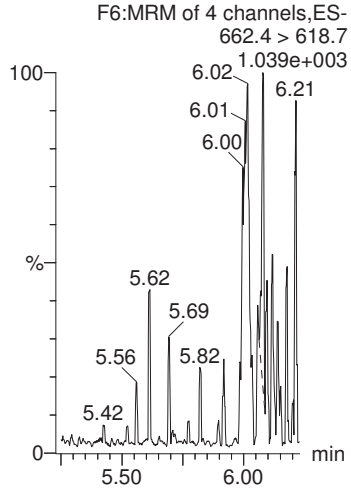
PFUnA



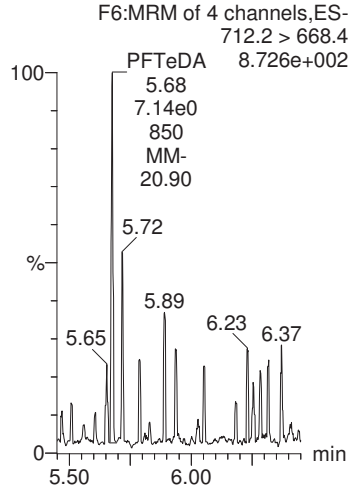
PFDoA



PFTrDA



PFTeDA



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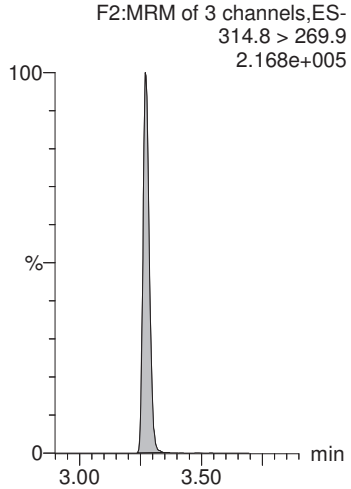

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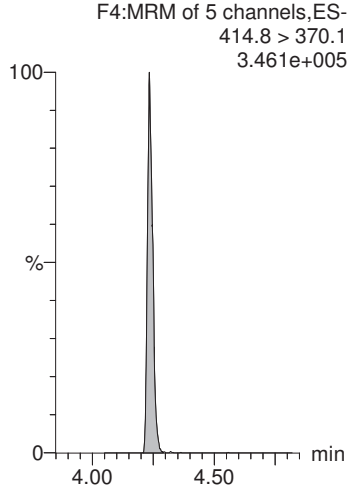

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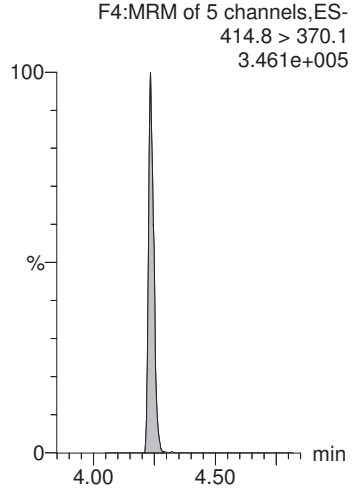

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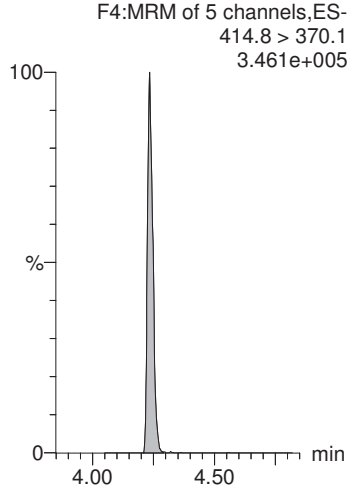

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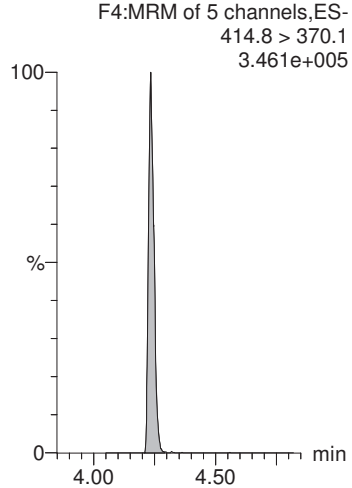

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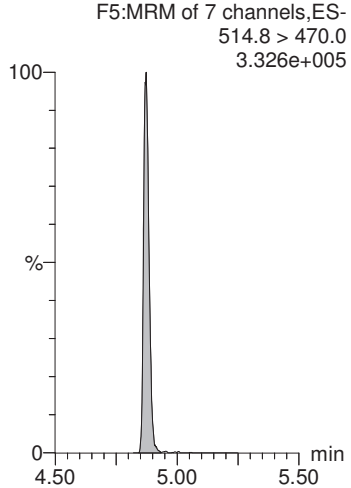


CGH 7/25/2018

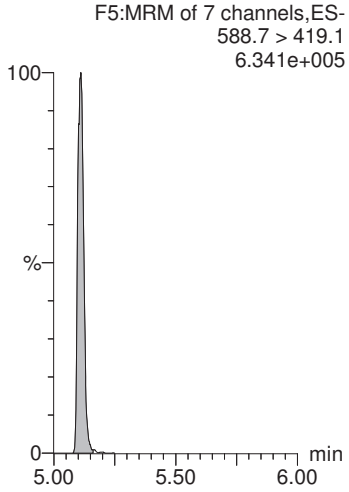
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-46.qld

Last Altered: Wednesday, July 25, 2018 13:41:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:42:54 Pacific Daylight Time

Name: 180724G5_46, Date: 24-Jul-2018, Time: 22:48:29, ID: 1801824-02 CBD-1FB23-0718 0.25791, Description: CBD-1FB23-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-47.qld

Last Altered: Wednesday, July 25, 2018 13:44:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:48:10 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_47, Date: 24-Jul-2018, Time: 23:01:20, ID: 1801824-03 CBD-1RW24-0718 0.25084, Description: CBD-1RW24-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.27e4	0.251		2.90				
2	2	PFHxA	312.7 > 268.8	7.45e1	8.92e3	0.251		3.30	3.27	0.0835	0.409	
3	3	PFHpA	362.7 > 318.8		8.92e3	0.251		3.81				
4	4	PFHxS	398.7 > 80.7		1.27e4	0.251		3.92				
5	5	PFOA	412.8 > 369.0	2.59e1	8.92e3	0.251		4.24	4.24	0.0290	0.158	
6	6	PFNA	462.9 > 419.1		8.92e3	0.251		4.60				
7	7	PFOS	498.8 >80.7		1.27e4	0.251		4.64				
8	8	PFDA	512.8 > 469.0	2.34e1	8.92e3	0.251		4.88	4.89	0.0262	0.120	
9	9	N-MeFOSAA	569.7 > 419.0		1.47e4	0.251		5.00				
10	10	N-EtFOSAA	583.6 >419.1		1.47e4	0.251		5.12				
11	11	PFUnA	562.7 > 518.9		8.92e3	0.251		5.12				
12	12	PFDoA	612.5 > 319.0		8.92e3	0.251		5.36				
13	13	PFTrDA	662.4 > 618.7		8.92e3	0.251		5.57				
14	14	PFTeDA	712.2>668.4		8.92e3	0.251		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	6.77e3	8.92e3	0.251	0.753	3.40	3.27	7.59	40.2	100.9
16	16	13C2-PFDA	514.8 > 470.0	9.21e3	8.92e3	0.251	1.023	4.83	4.88	10.3	40.2	100.9
17	17	d5-N-EtFOSAA	588.7> 419.1	1.68e4	1.47e4	0.251	1.264	5.00	5.11	45.6	144	90.2
18	18	13C2-PFOA	414.8 > 370.1	8.92e3	8.92e3	0.251	1.000	4.28	4.23	10.0	39.9	100.0
19	19	13C4-PFOS	502.8>80.7	1.27e4	1.27e4	0.251	1.000	4.71	4.64	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.47e4	1.47e4	0.251	1.000	5.04	5.00	40.0	159	100.0

CGH 7/25/2018

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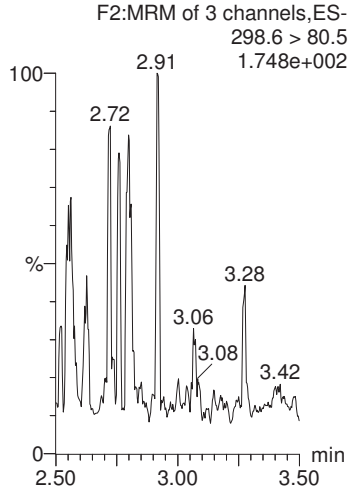
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-47.qld

Last Altered: Wednesday, July 25, 2018 13:44:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:48:10 Pacific Daylight Time

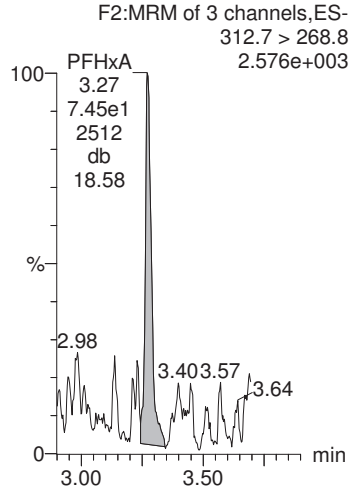
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_47, Date: 24-Jul-2018, Time: 23:01:20, ID: 1801824-03 CBD-1RW24-0718 0.25084, Description: CBD-1RW24-0718

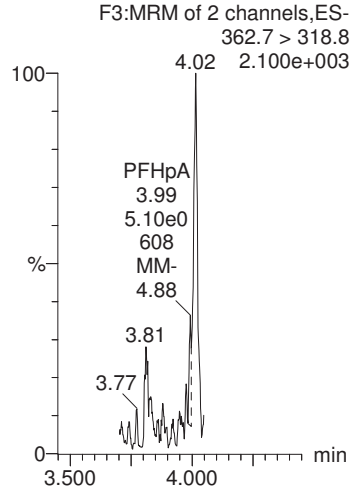
PFBS



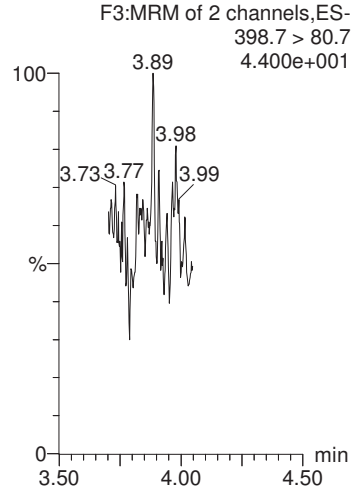
PFHxA



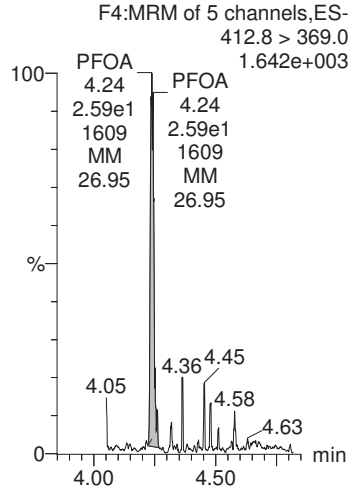
PFHpA



PFHxS



PFOA



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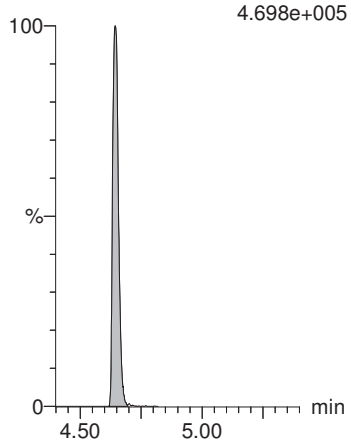

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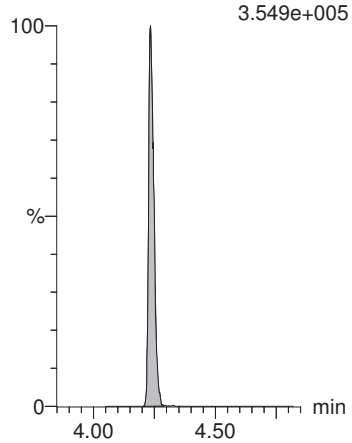

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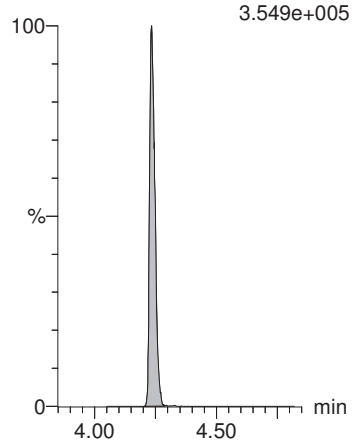

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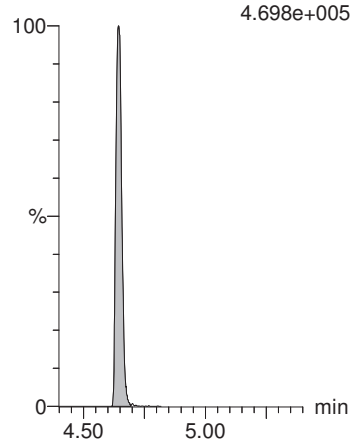

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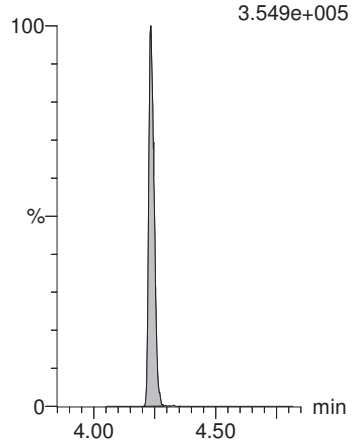

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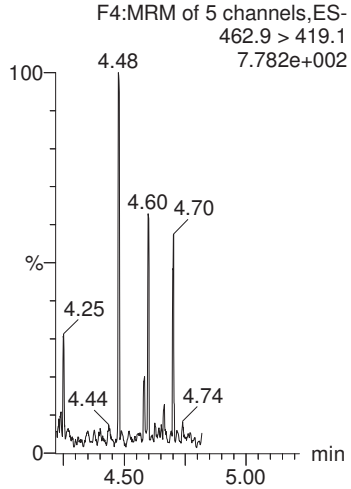
Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-47.qld

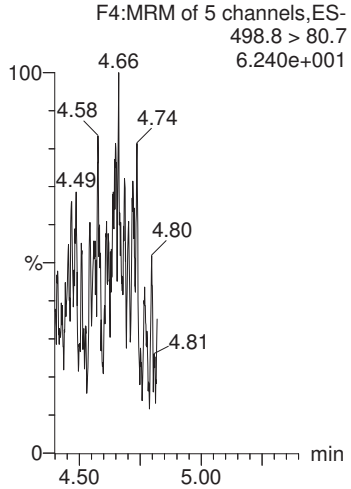
Last Altered: Wednesday, July 25, 2018 13:44:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:48:10 Pacific Daylight Time

Name: 180724G5_47, Date: 24-Jul-2018, Time: 23:01:20, ID: 1801824-03 CBD-1RW24-0718 0.25084, Description: CBD-1RW24-0718

PFNA



PFOS



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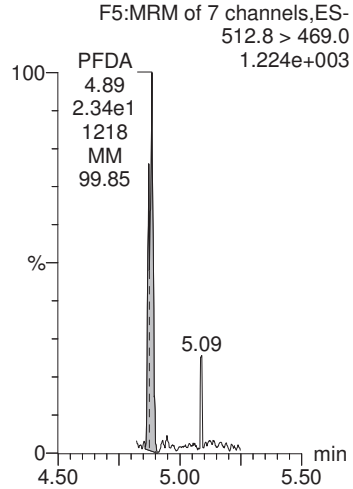
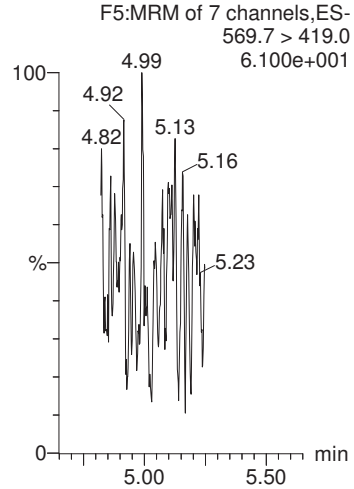
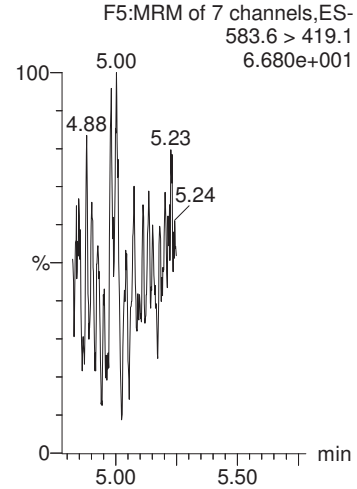


N-MeFOSAA



N-EtFOSAA



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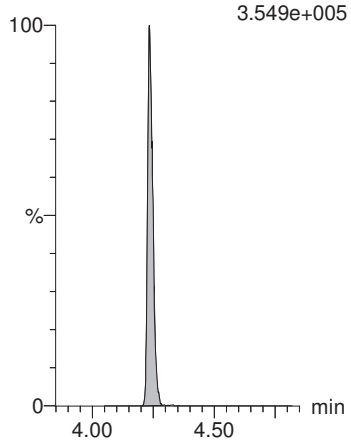

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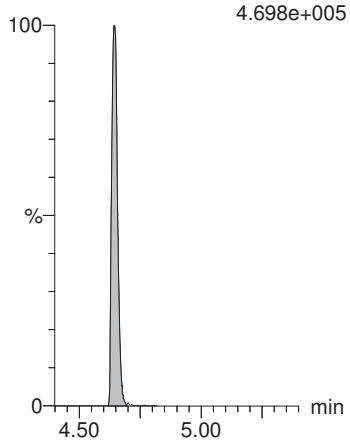

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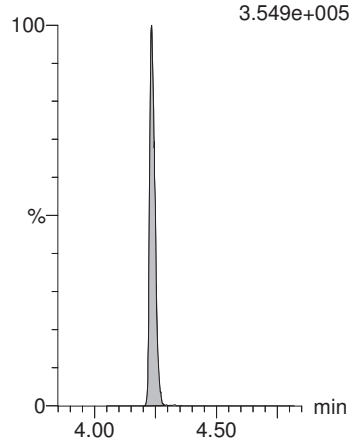
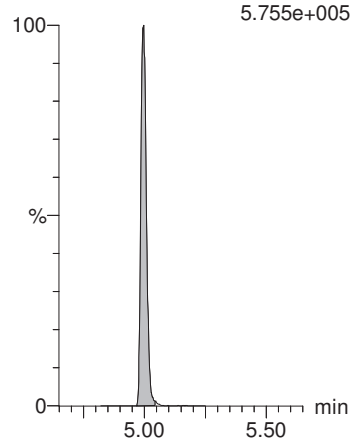


d3-N-MeFOSAA



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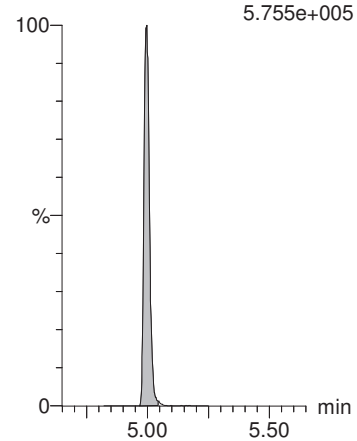


CGH 7/25/2018

Vista Analytical Laboratory

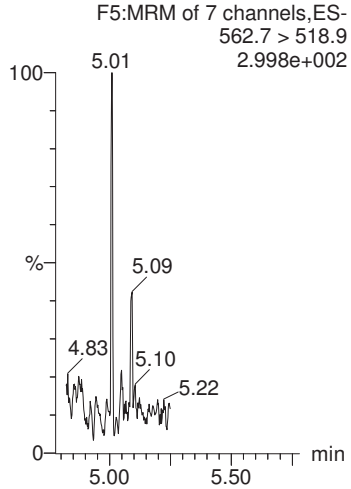
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-47.qld

Last Altered: Wednesday, July 25, 2018 13:44:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:48:10 Pacific Daylight Time

Name: 180724G5_47, Date: 24-Jul-2018, Time: 23:01:20, ID: 1801824-03 CBD-1RW24-0718 0.25084, Description: CBD-1RW24-0718

PFUnA



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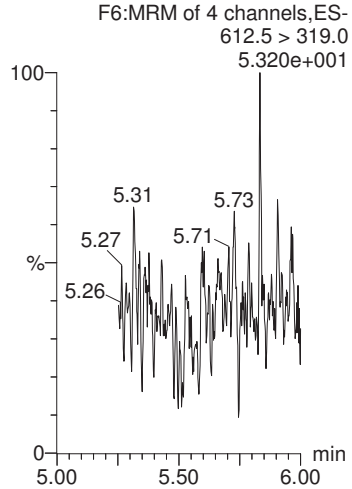

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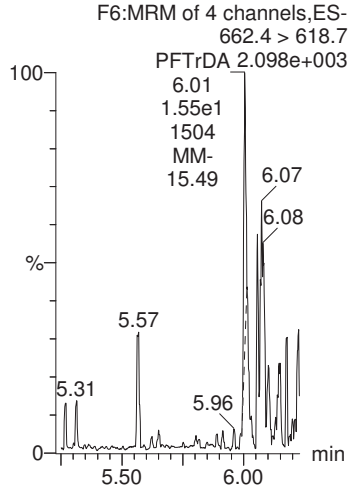
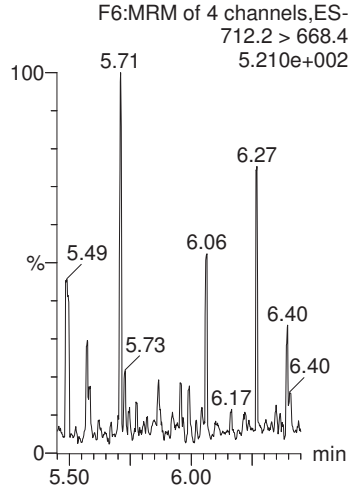
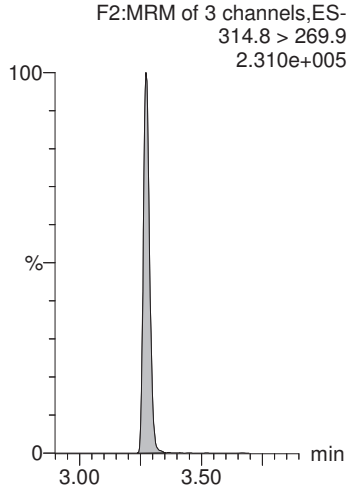


PFTeDA



13C2-PFHxA



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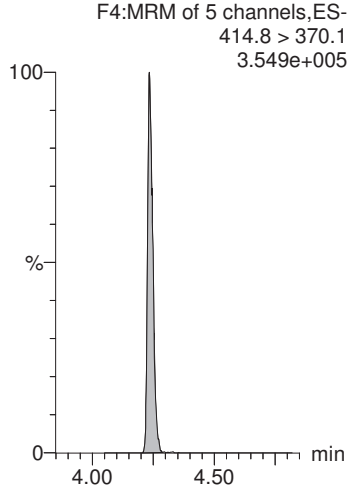

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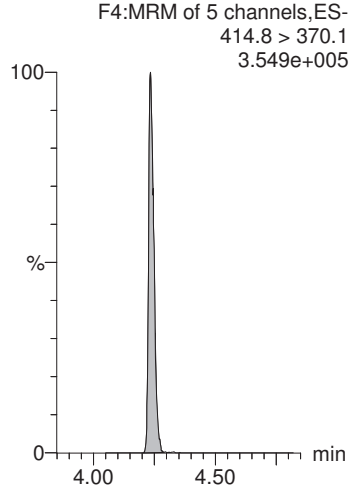

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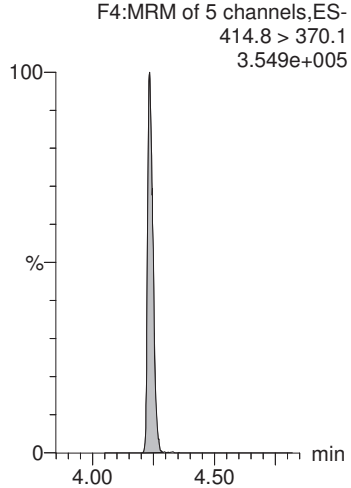

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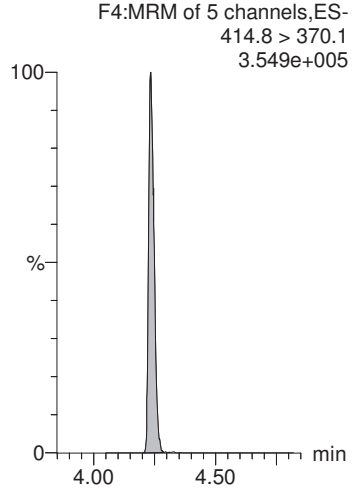

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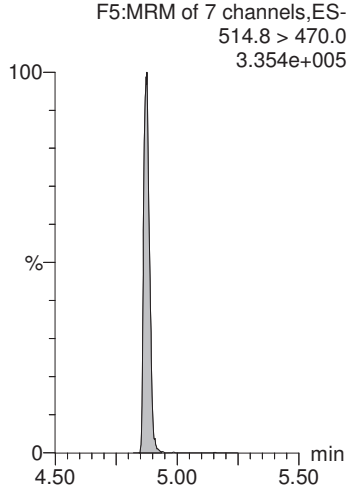


CGH 7/25/2018

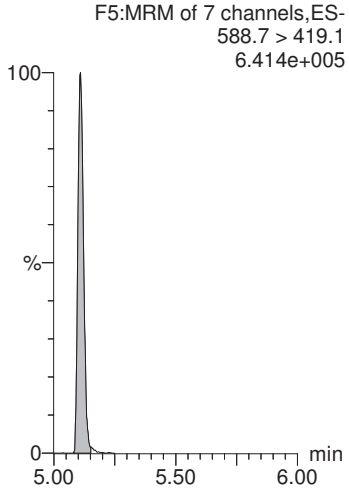
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-47.qld

Last Altered: Wednesday, July 25, 2018 13:44:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:48:10 Pacific Daylight Time

Name: 180724G5_47, Date: 24-Jul-2018, Time: 23:01:20, ID: 1801824-03 CBD-1RW24-0718 0.25084, Description: CBD-1RW24-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-48.qld

Last Altered: Wednesday, July 25, 2018 13:46:40 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:47:20 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_48, Date: 24-Jul-2018, Time: 23:14:08, ID: 1801824-04 CBD-1FB24-0718 0.25618, Description: CBD-1FB24-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.19e4	0.256		2.90				
2	2	PFHxA	312.7 > 268.8	3.96e1	8.19e3	0.256		3.30	3.27	0.0484	0.232	
3	3	PFHpA	362.7 > 318.8	1.30e1	8.19e3	0.256		3.81	3.81	0.0158	0.0705	
4	4	PFHxS	398.7 > 80.7		1.19e4	0.256		3.92				
5	5	PFOA	412.8 > 369.0	1.20e1	8.19e3	0.256		4.24	4.23	0.0147	0.0787	
6	6	PFNA	462.9 > 419.1		8.19e3	0.256		4.60				
7	7	PFOS	498.8 >80.7		1.19e4	0.256		4.63				
8	8	PFDA	512.8 > 469.0	4.13e1	8.19e3	0.256		4.88	4.87	0.0504	0.226	
9	9	N-MeFOSAA	569.7 > 419.0		1.43e4	0.256		5.00				
10	10	N-EtFOSAA	583.6 >419.1		1.43e4	0.256		5.11				
11	11	PFUnA	562.7 > 518.9		8.19e3	0.256		5.12				
12	12	PFDoA	612.5 > 319.0		8.19e3	0.256		5.36				
13	13	PFTrDA	662.4 > 618.7		8.19e3	0.256		5.57				
14	14	PFTeDA	712.2>668.4		8.19e3	0.256		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	5.92e3	8.19e3	0.256	0.753	3.40	3.27	7.23	37.5	96.1
16	16	13C2-PFDA	514.8 > 470.0	8.40e3	8.19e3	0.256	1.023	4.83	4.87	10.3	39.2	100.3
17	17	d5-N-EtFOSAA	588.7> 419.1	1.68e4	1.43e4	0.256	1.264	4.99	5.11	47.2	146	93.4
18	18	13C2-PFOA	414.8 > 370.1	8.19e3	8.19e3	0.256	1.000	4.28	4.23	10.0	39.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.19e4	1.19e4	0.256	1.000	4.71	4.64	28.7	112	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.43e4	1.43e4	0.256	1.000	5.04	4.99	40.0	156	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-48.qld

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Printed: Wednesday, July 25, 2018 13:47:20 Pacific Daylight Time

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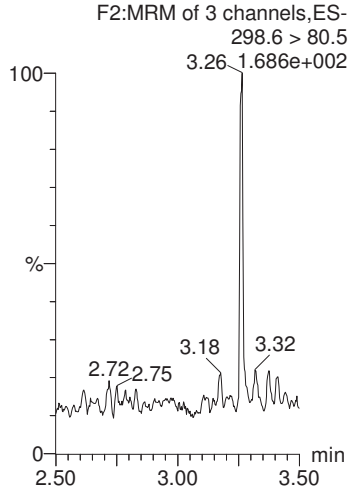
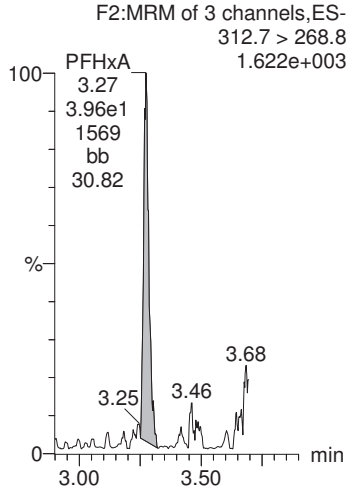
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_48, Date: 24-Jul-2018, Time: 23:14:08, ID: 1801824-04 CBD-1FB24-0718 0.25618, Description: CBD-1FB24-0718

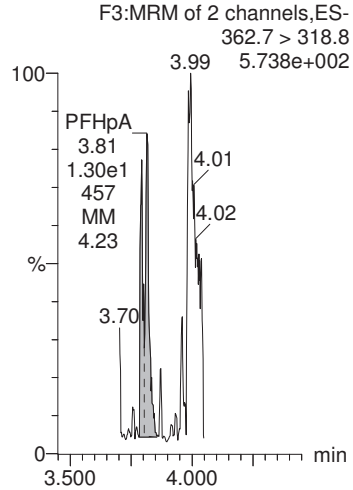
PFBS



PFHxA



PFHpA



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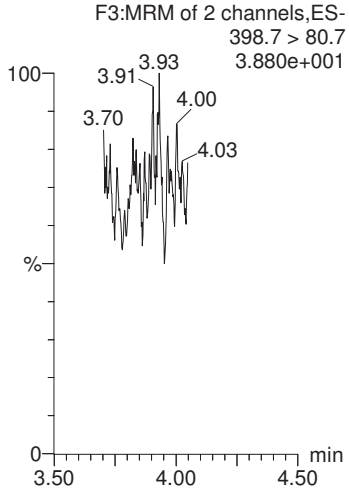
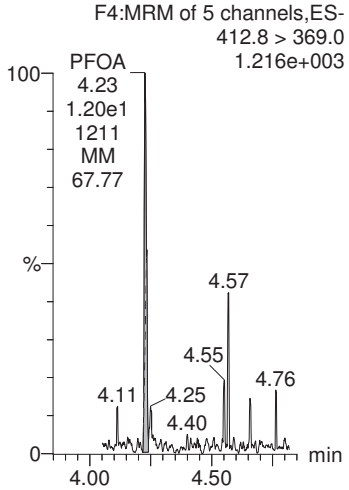


PFOA



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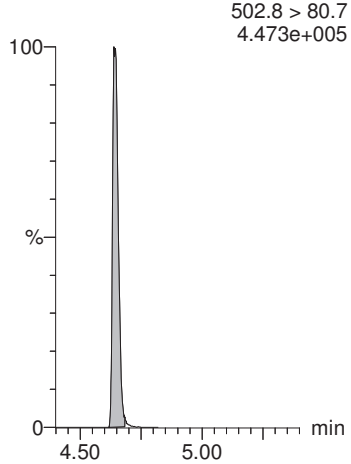

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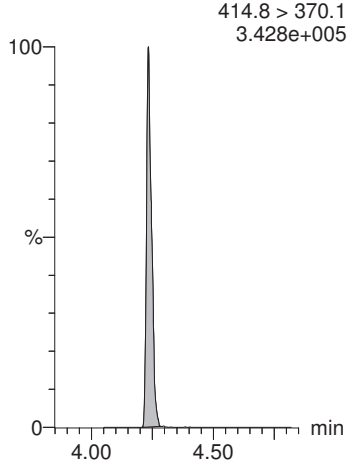

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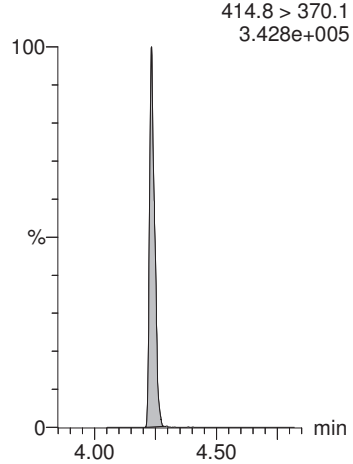

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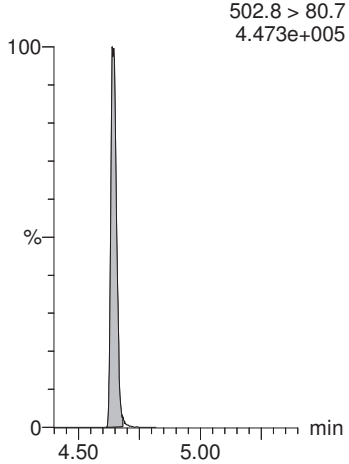

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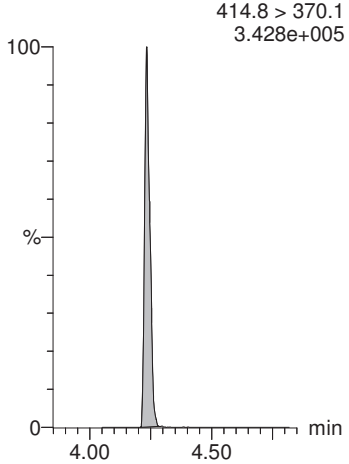

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-48.qld

Last Altered: Wednesday, July 25, 2018 13:46:40 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:47:20 Pacific Daylight Time

Name: 180724G5_48, Date: 24-Jul-2018, Time: 23:14:08, ID: 1801824-04 CBD-1FB24-0718 0.25618, Description: CBD-1FB24-0718

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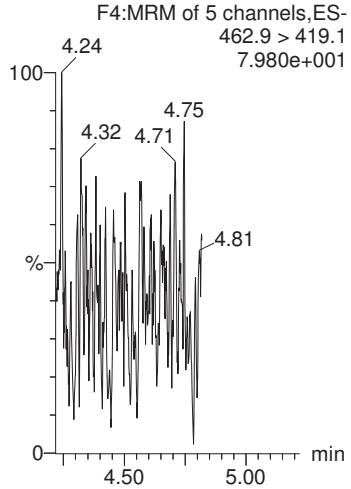

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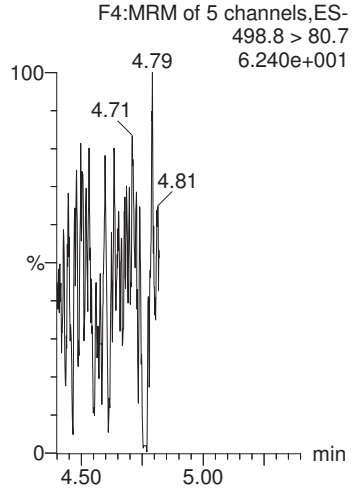

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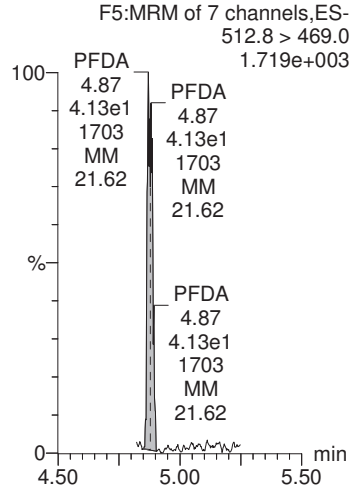

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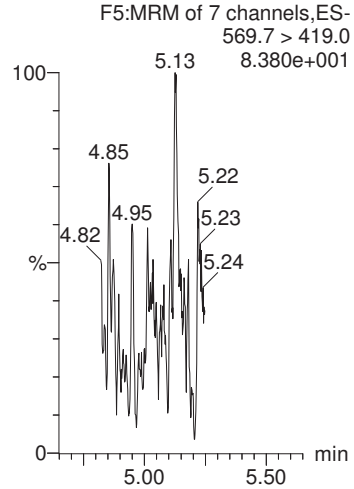

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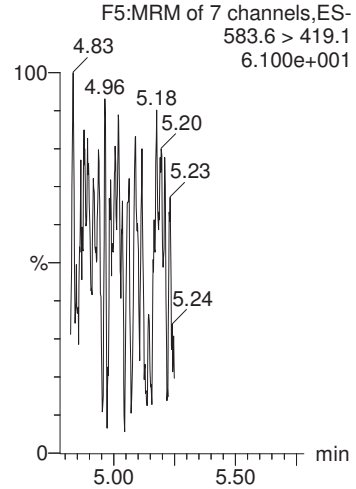

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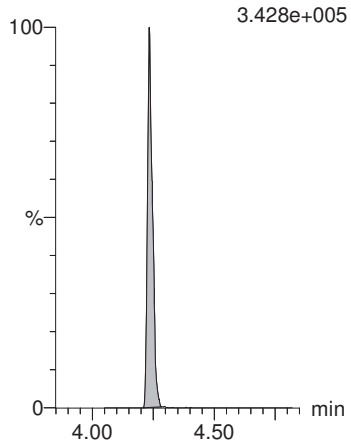

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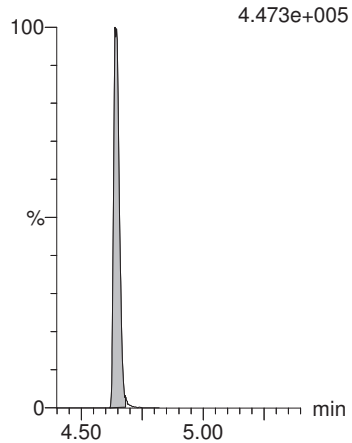

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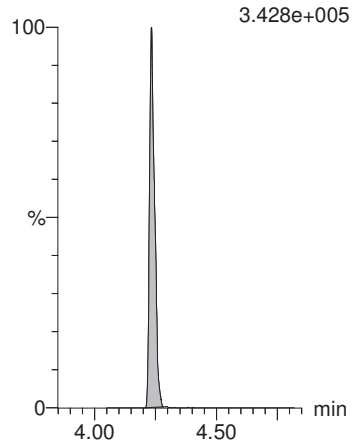

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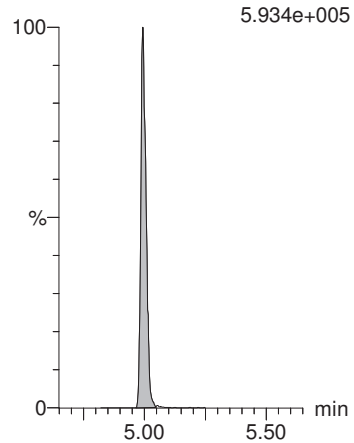

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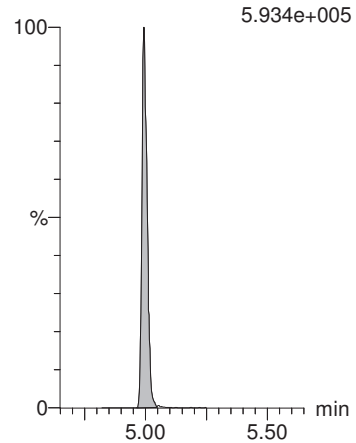

CGH 7/25/2018

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-48.qld

Last Altered: Wednesday, July 25, 2018 13:46:40 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:47:20 Pacific Daylight Time

Name: 180724G5_48, Date: 24-Jul-2018, Time: 23:14:08, ID: 1801824-04 CBD-1FB24-0718 0.25618, Description: CBD-1FB24-0718

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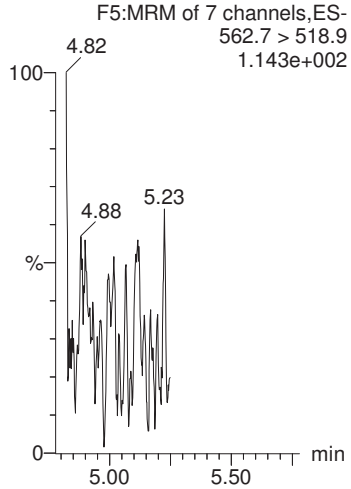

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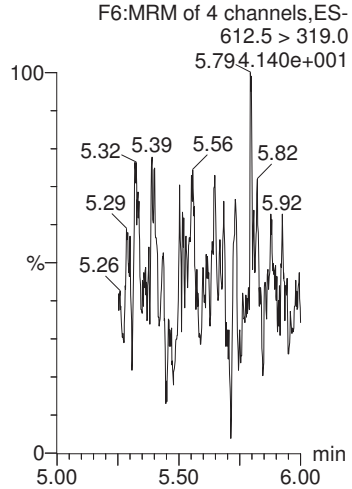

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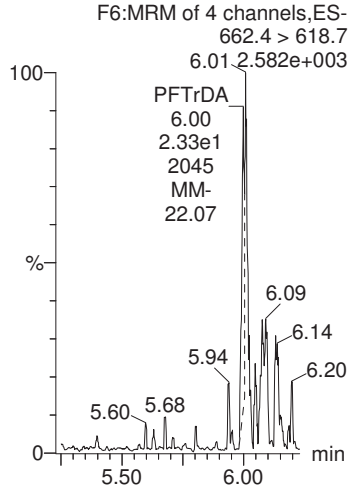

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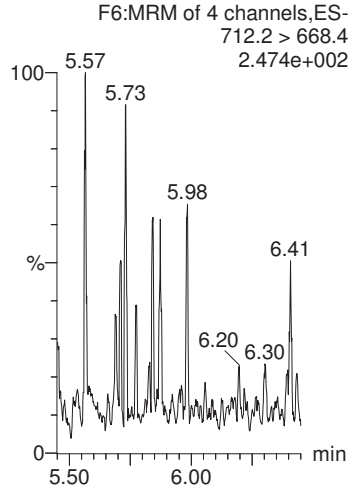

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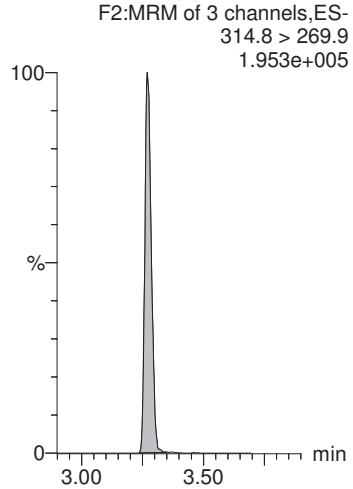

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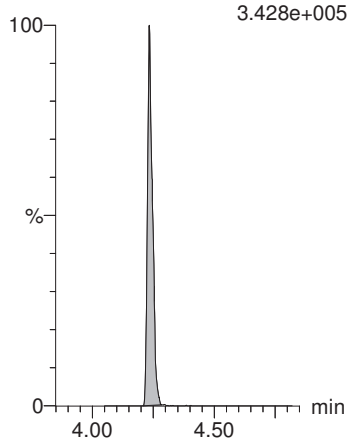

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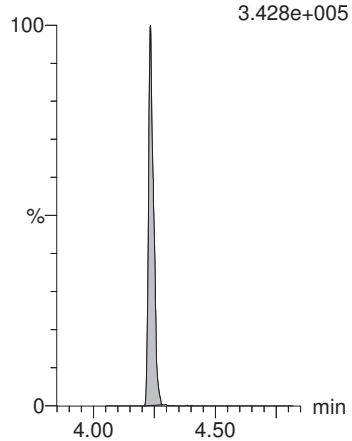

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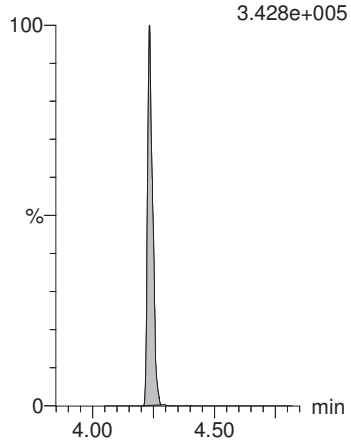

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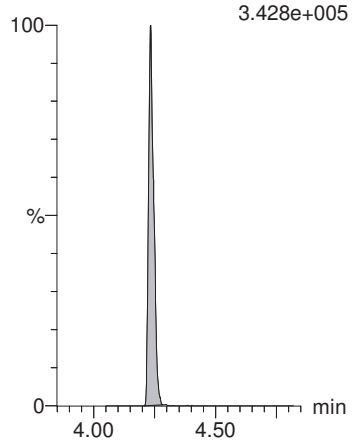

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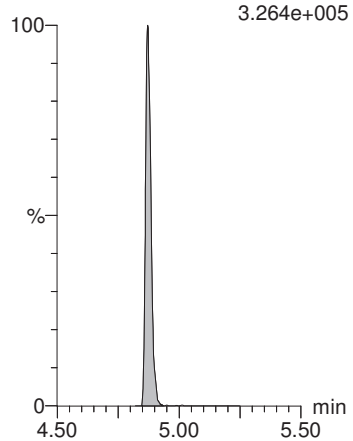


CGH 7/25/2018

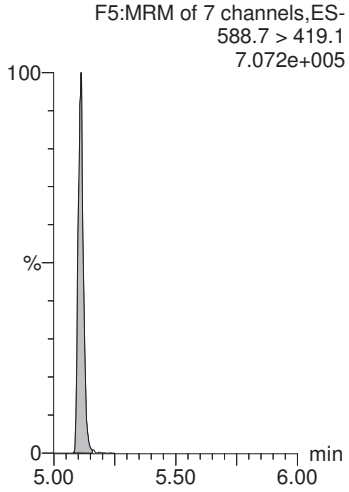
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-48.qld

Last Altered: Wednesday, July 25, 2018 13:46:40 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 13:47:20 Pacific Daylight Time

Name: 180724G5_48, Date: 24-Jul-2018, Time: 23:14:08, ID: 1801824-04 CBD-1FB24-0718 0.25618, Description: CBD-1FB24-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-4.qld

Last Altered: Friday, July 27, 2018 11:08:04 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:09:11 Pacific Daylight Time

Method: Y:\G1.pro\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: Y:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_4, Date: 25-Jul-2018, Time: 08:54:08, ID: 1801824-05 CBD-1RW25-0718 0.24505, Description: CBD-1RW25-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.06e4	0.255		2.90				
2	2	PFHxA	312.7 > 268.8	3.28e1	6.20e3	0.255		3.30	3.28	0.0529	0.255	
3	3	PFHpA	362.7 > 318.8		6.20e3	0.255		3.82				
4	4	PFHxS	398.7 > 80.7	1.29e1	1.06e4	0.255		3.92	3.95	0.0351	0.122	
5	5	PFOA	412.8 > 369.0	1.07e1	6.20e3	0.255		4.24	4.23	0.0173	0.0931	
6	6	PFNA	462.9 > 419.1		6.20e3	0.255		4.60				
7	7	PFOS	498.8 >80.7		1.06e4	0.255		4.64				
8	8	PFDA	512.8 > 469.0	1.50e1	6.20e3	0.255		4.89	4.87	0.0243	0.109	
9	9	N-MeFOSAA	569.7 > 419.0		1.01e4	0.255		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.01e4	0.255		5.11				
11	11	PFUnA	562.7 > 518.9		6.20e3	0.255		5.13				
12	12	PFDoA	612.5 > 319.0		6.20e3	0.255		5.37				
13	13	PFTrDA	662.4 > 618.7		6.20e3	0.255		5.58				
14	14	PFTeDA	712.2>668.4		6.20e3	0.255		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	4.95e3	6.20e3	0.255	0.753	3.40	3.28	7.99	41.6	106.1
16	16	13C2-PFDA	514.8 > 470.0	6.11e3	6.20e3	0.255	1.023	4.83	4.87	9.86	37.8	96.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.15e4	1.01e4	0.255	1.264	4.99	5.11	45.5	141	90.0
18	18	13C2-PFOA	414.8 > 370.1	6.20e3	6.20e3	0.255	1.000	4.28	4.24	10.0	39.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.06e4	1.06e4	0.255	1.000	4.71	4.64	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.01e4	1.01e4	0.255	1.000	5.04	4.99	40.0	157	100.0

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/27/2018

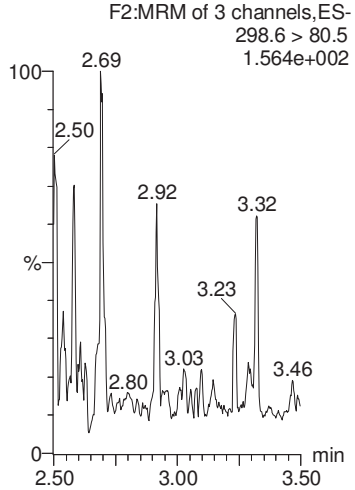
Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-4.qld

Last Altered: Friday, July 27, 2018 11:08:04 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:09:11 Pacific Daylight Time

Method: Y:\G1.pro\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: Y:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_4, Date: 25-Jul-2018, Time: 08:54:08, ID: 1801824-05 CBD-1RW25-0718 0.24505, Description: CBD-1RW25-0718

PFBS



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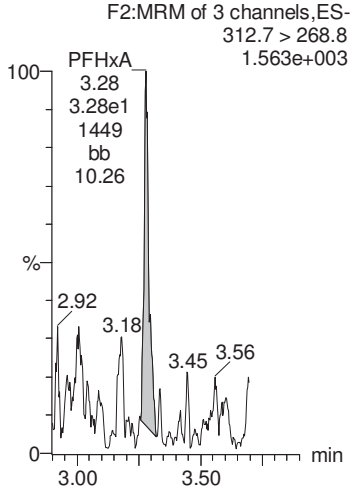

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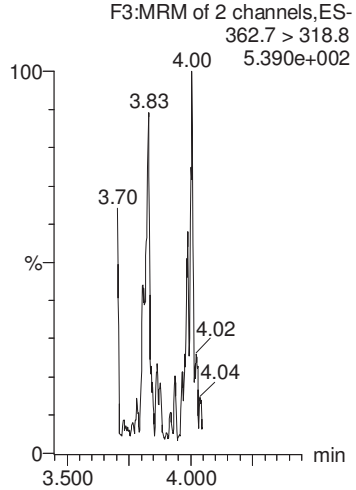

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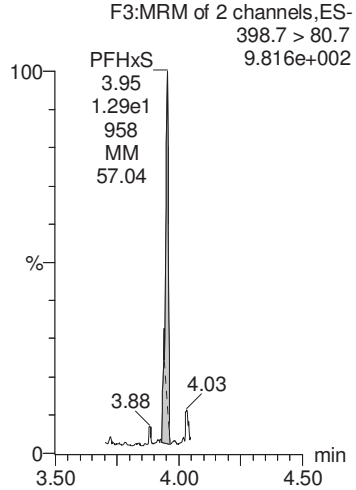

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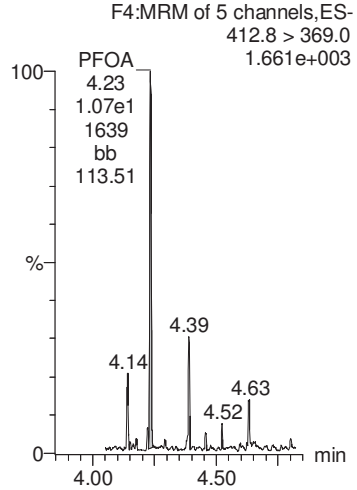

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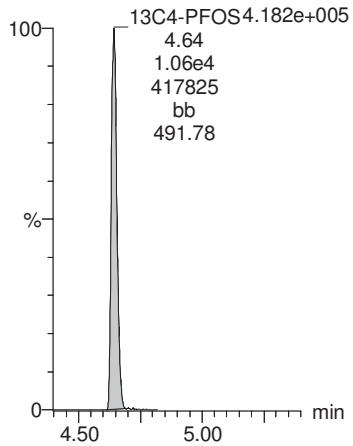

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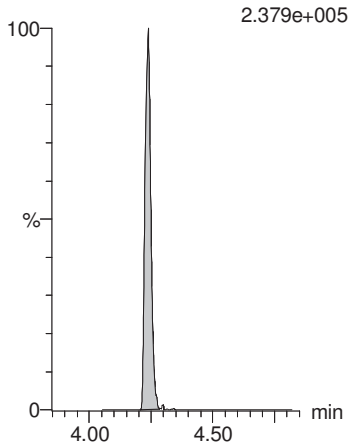

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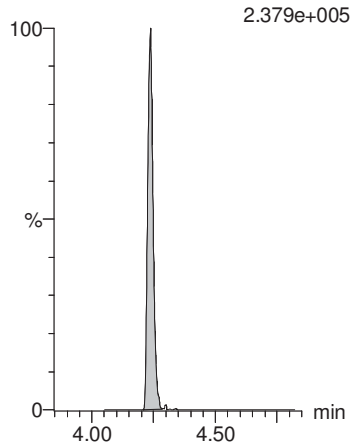

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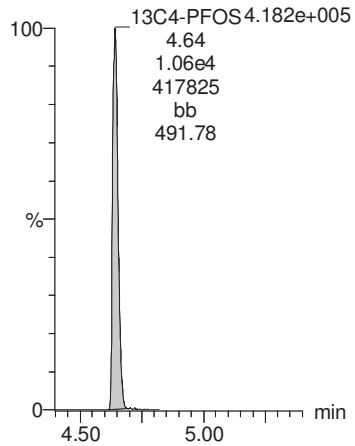

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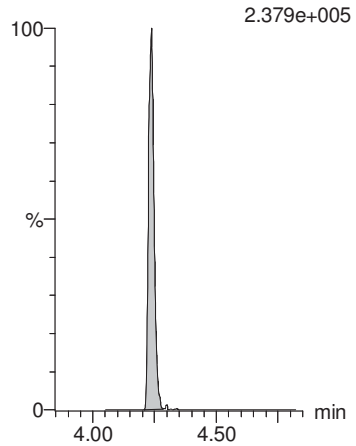

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-4.qld

Last Altered: Friday, July 27, 2018 11:08:04 Pacific Daylight Time
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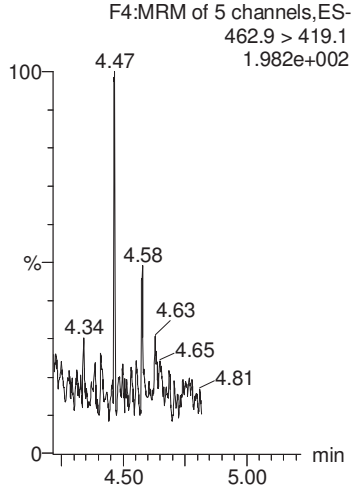
Name: 180725G1_4, Date: 25-Jul-2018, Time: 08:54:08, ID: 1801824-05 CBD-1RW25-0718 0.24505, Description: CBD-1RW25-0718

PFNA



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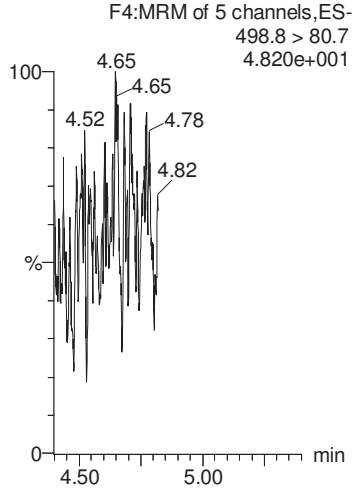

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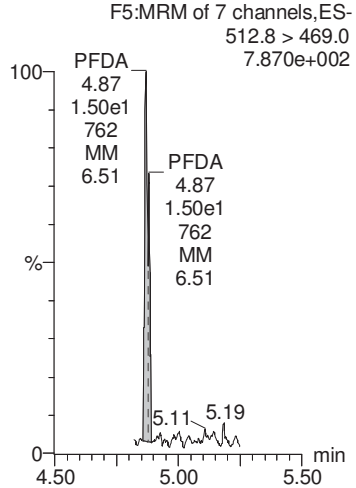

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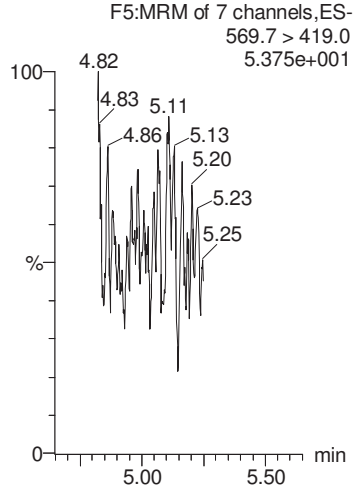

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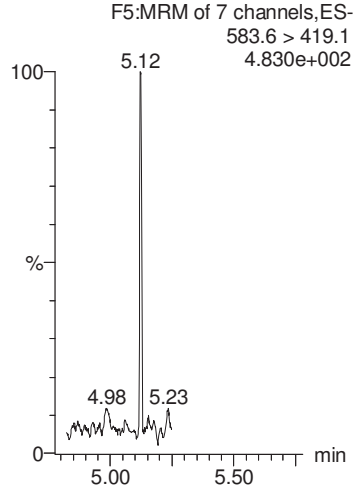
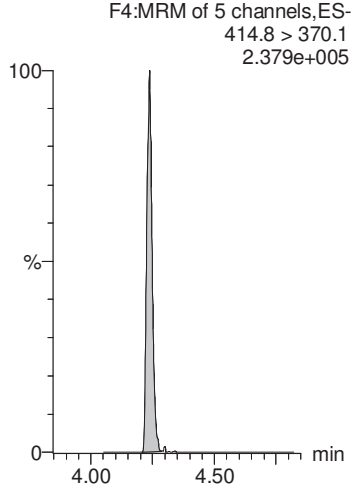
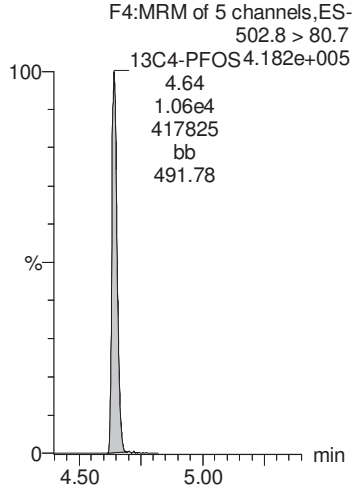


13C2-PFOA



13C4-PFOS



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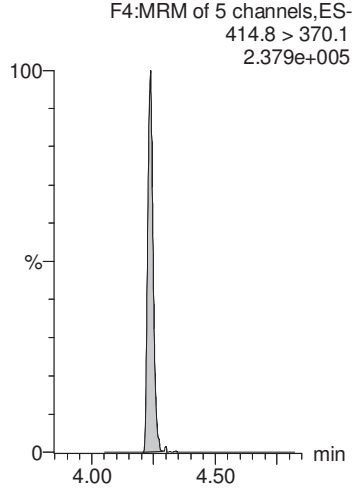

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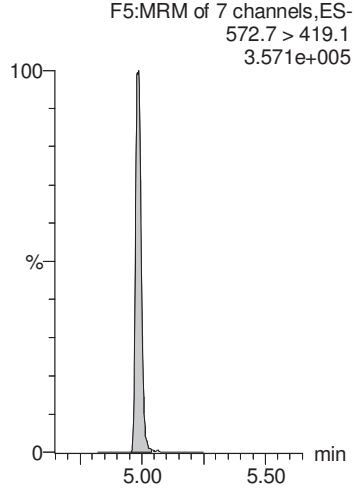

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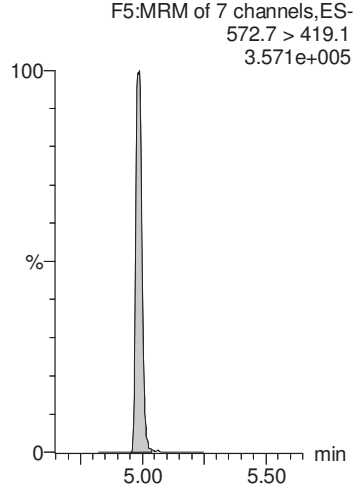

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-4.qld

Last Altered: Friday, July 27, 2018 11:08:04 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:09:11 Pacific Daylight Time

Name: 180725G1_4, Date: 25-Jul-2018, Time: 08:54:08, ID: 1801824-05 CBD-1RW25-0718 0.24505, Description: CBD-1RW25-0718

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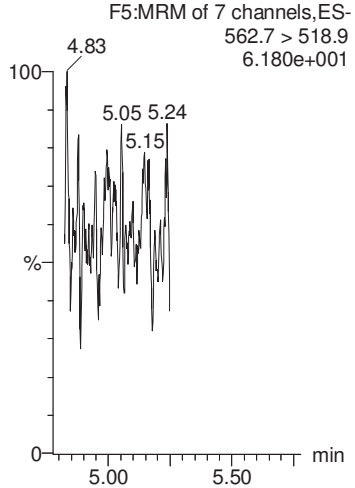

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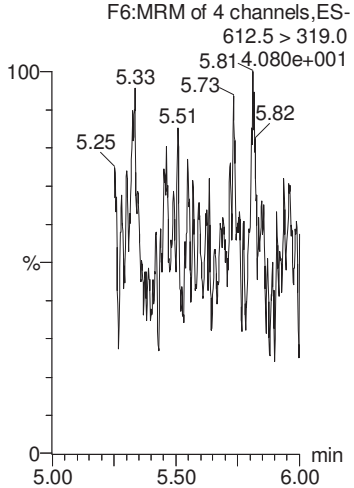

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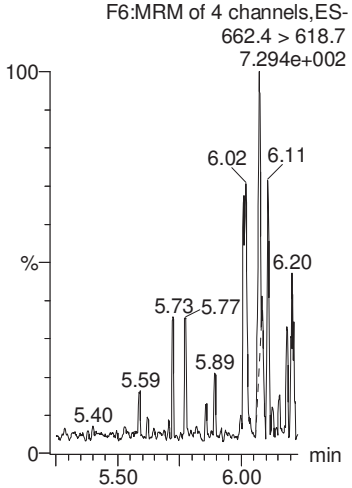

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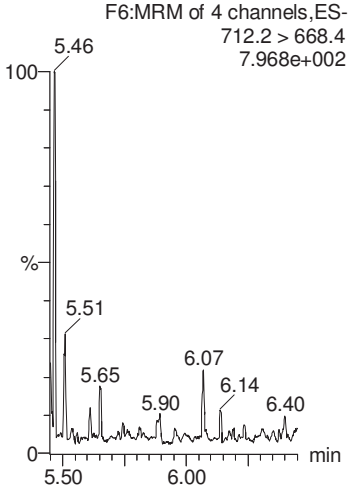

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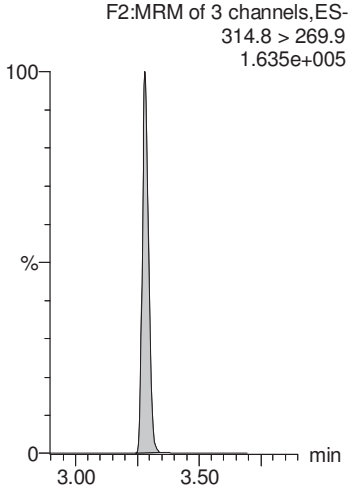

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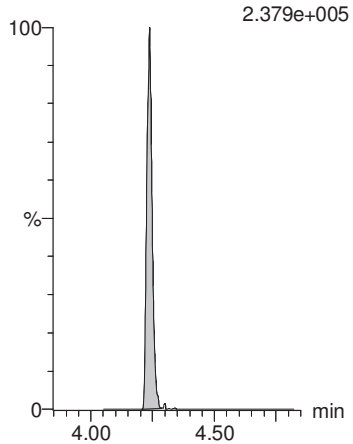

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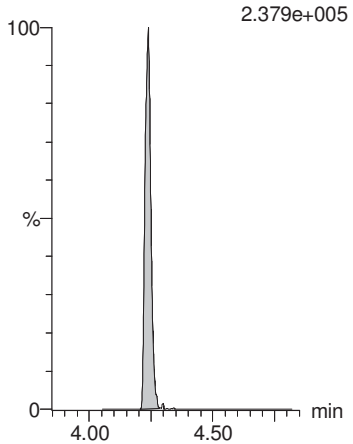

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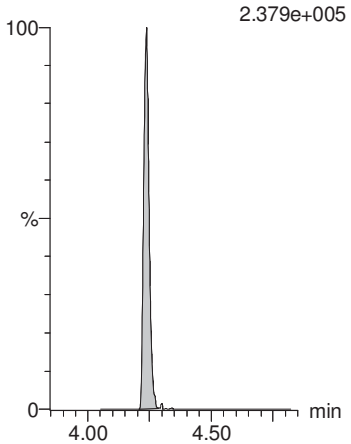

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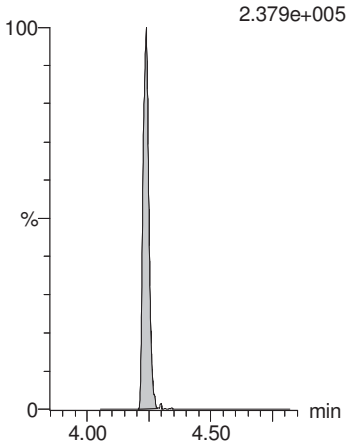

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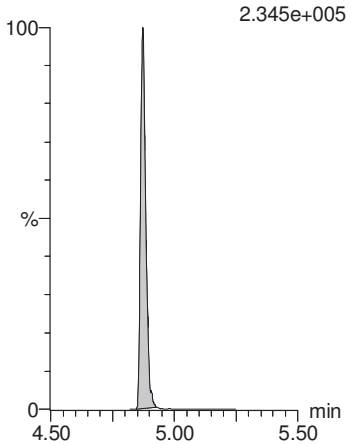


AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

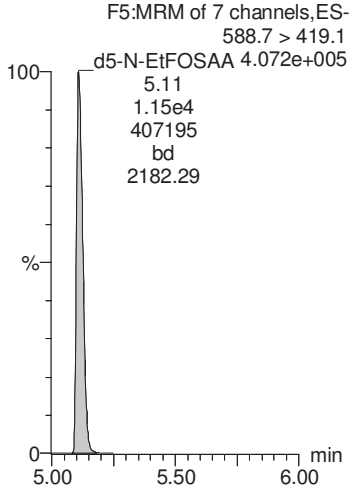
MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-4.qld

Last Altered: Friday, July 27, 2018 11:08:04 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:09:11 Pacific Daylight Time

Name: 180725G1_4, Date: 25-Jul-2018, Time: 08:54:08, ID: 1801824-05 CBD-1RW25-0718 0.24505, Description: CBD-1RW25-0718

d5-N-EtFOSAA



AMR FOR CGH 7/27/2018

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-5.qld

Last Altered: Wednesday, July 25, 2018 14:21:32 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:22:05 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_5, Date: 25-Jul-2018, Time: 09:06:11, ID: 1801824-06 CBD-1FB25-0718 0.25439, Description: CBD-1FB25-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.04e4	0.254		2.90				
2	2	PFHxA	312.7 > 268.8	2.14e1	6.16e3	0.254		3.28	3.28	0.0347	0.168	
3	3	PFHpA	362.7 > 318.8	6.04e0	6.16e3	0.254		3.82	3.81	0.00981	0.0440	
4	4	PFHxS	398.7 > 80.7		1.04e4	0.254		3.94				
5	5	PFOA	412.8 > 369.0	2.61e1	6.16e3	0.254		4.23	4.22	0.0423	0.228	
6	6	PFNA	462.9 > 419.1		6.16e3	0.254		4.58				
7	7	PFOS	498.8 >80.7		1.04e4	0.254		4.63				
8	8	PFDA	512.8 > 469.0	1.90e1	6.16e3	0.254		4.87	4.89	0.0309	0.139	
9	9	N-MeFOSAA	569.7 > 419.0		1.03e4	0.254		4.98				
10	10	N-EtFOSAA	583.6 >419.1		1.03e4	0.254		5.11				
11	11	PFUnA	562.7 > 518.9		6.16e3	0.254		5.12				
12	12	PFDoA	612.5 > 319.0		6.16e3	0.254		5.37				
13	13	PFTrDA	662.4 > 618.7		6.16e3	0.254		5.58				
14	14	PFTeDA	712.2>668.4		6.16e3	0.254		5.75				
15	15	13C2-PFHxA	314.8 > 269.9	4.99e3	6.16e3	0.254	0.753	3.40	3.28	8.09	42.3	107.5
16	16	13C2-PFDA	514.8 > 470.0	6.37e3	6.16e3	0.254	1.023	4.83	4.87	10.3	39.7	101.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.24e4	1.03e4	0.254	1.264	4.98	5.11	48.2	150	95.4
18	18	13C2-PFOA	414.8 > 370.1	6.16e3	6.16e3	0.254	1.000	4.24	4.24	10.0	39.3	100.0
19	19	13C4-PFOS	502.8>80.7	1.04e4	1.04e4	0.254	1.000	4.64	4.64	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.03e4	1.03e4	0.254	1.000	4.99	4.98	40.0	157	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-5.qld

Last Altered: Wednesday, July 25, 2018 14:21:32 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:22:05 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_5, Date: 25-Jul-2018, Time: 09:06:11, ID: 1801824-06 CBD-1FB25-0718 0.25439, Description: CBD-1FB25-0718

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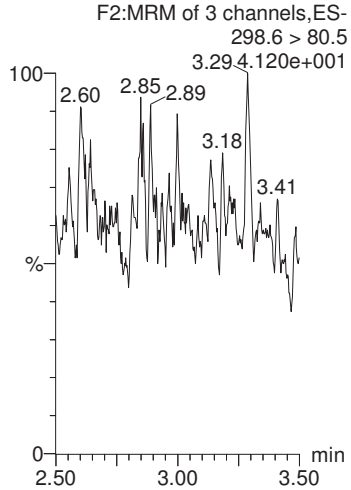

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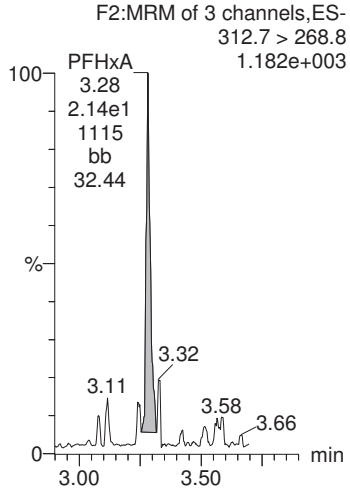

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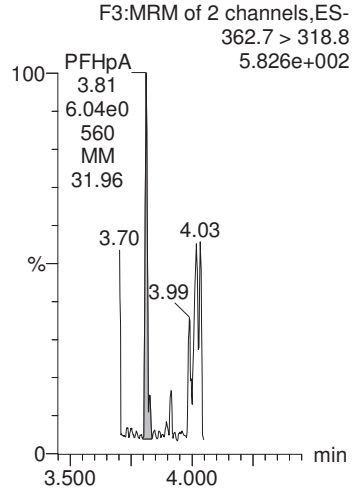

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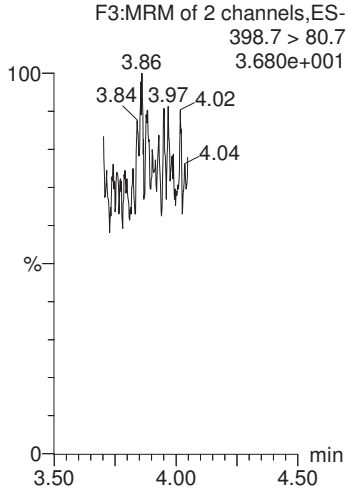
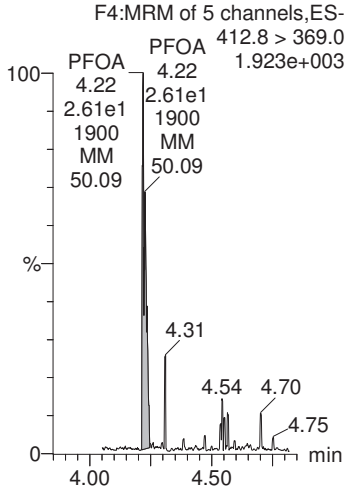


PFOA



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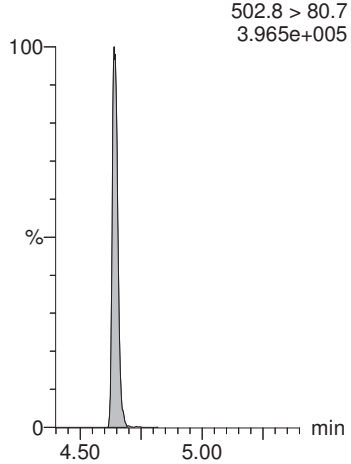

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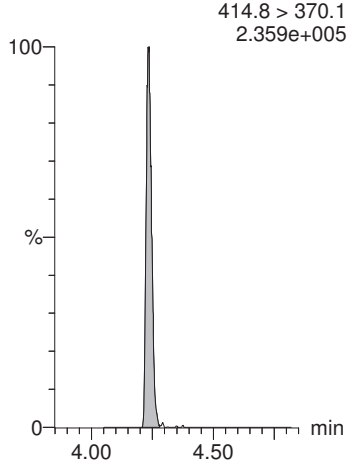

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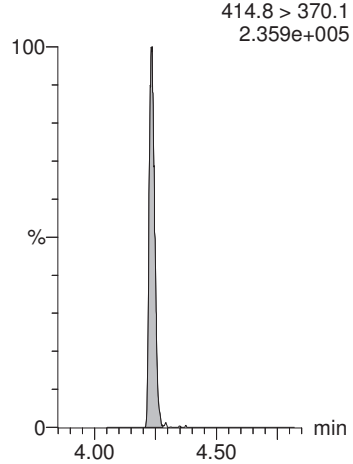

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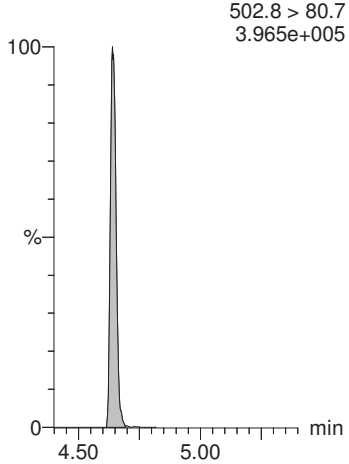

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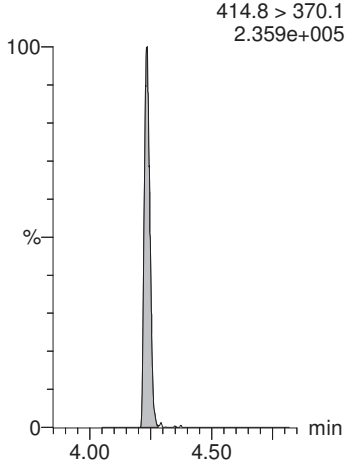

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-5.qld

Last Altered: Wednesday, July 25, 2018 14:21:32 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:22:05 Pacific Daylight Time

Name: 180725G1_5, Date: 25-Jul-2018, Time: 09:06:11, ID: 1801824-06 CBD-1FB25-0718 0.25439, Description: CBD-1FB25-0718

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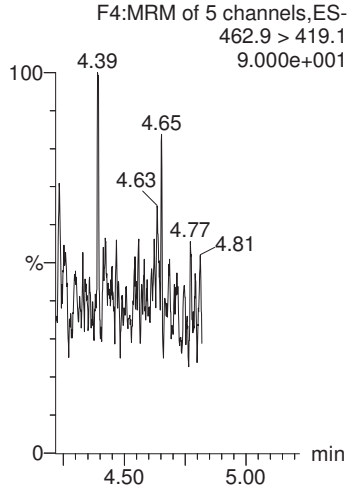

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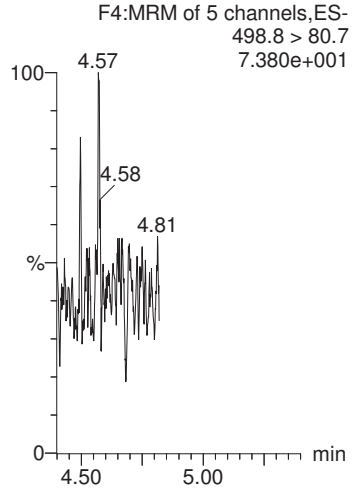

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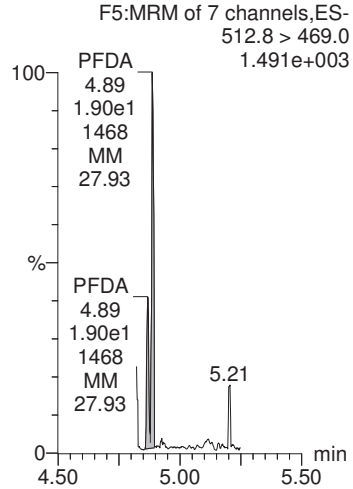

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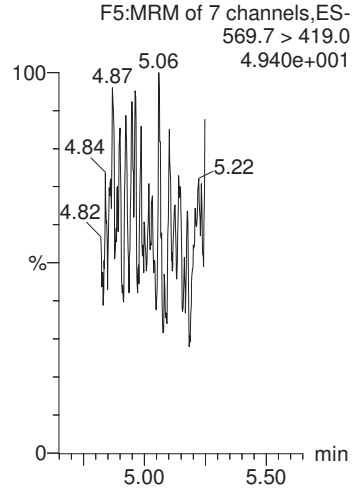

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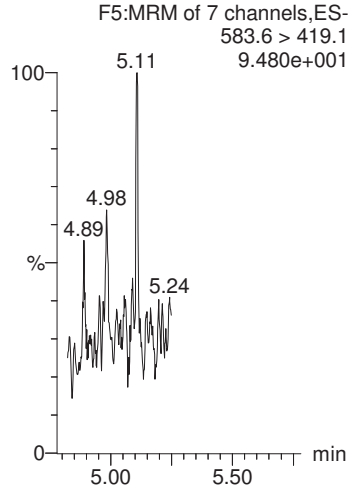

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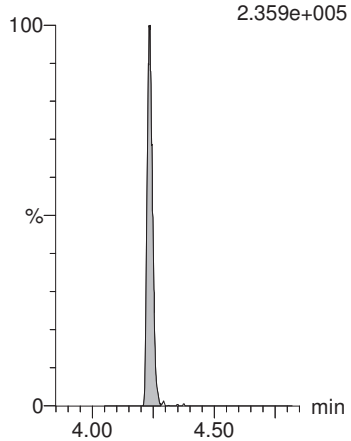

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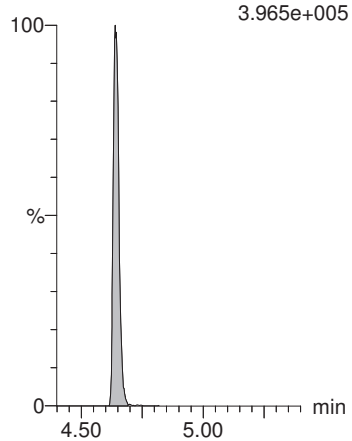

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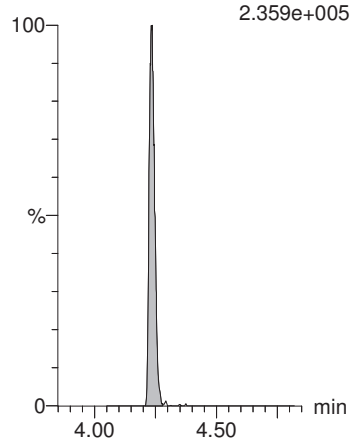

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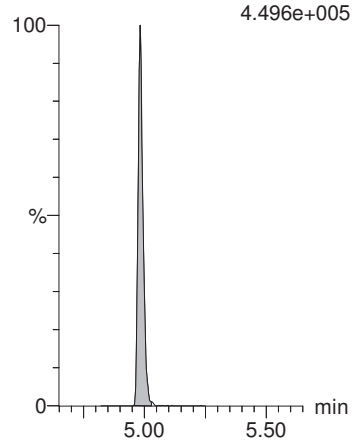

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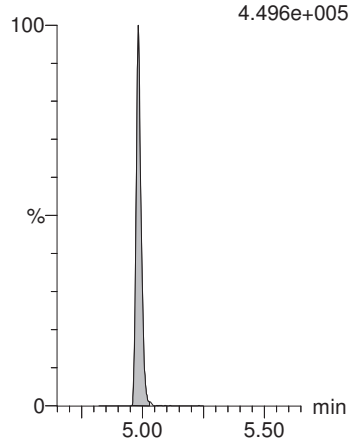


CGH 7/25/2018

Vista Analytical Laboratory

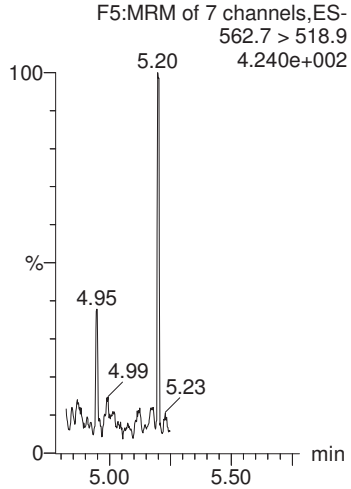
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-5.qld

Last Altered: Wednesday, July 25, 2018 14:21:32 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:22:05 Pacific Daylight Time

Name: 180725G1_5, Date: 25-Jul-2018, Time: 09:06:11, ID: 1801824-06 CBD-1FB25-0718 0.25439, Description: CBD-1FB25-0718

PFUnA



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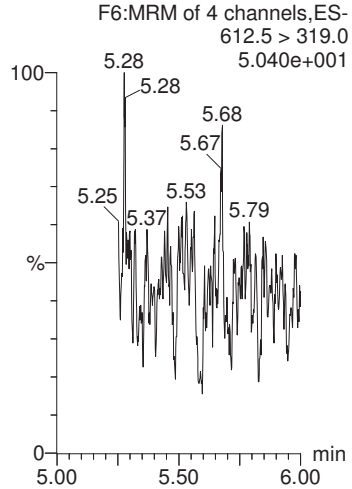

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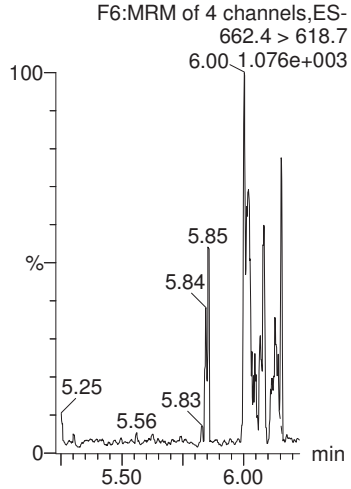

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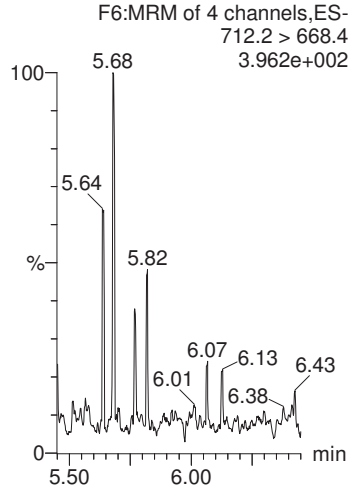

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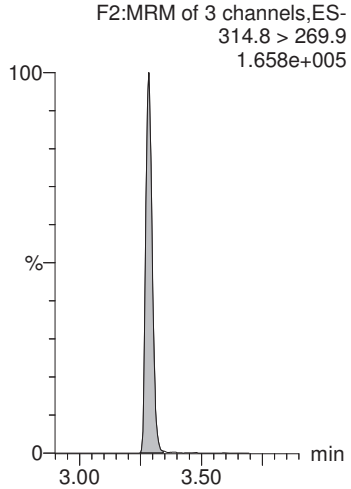

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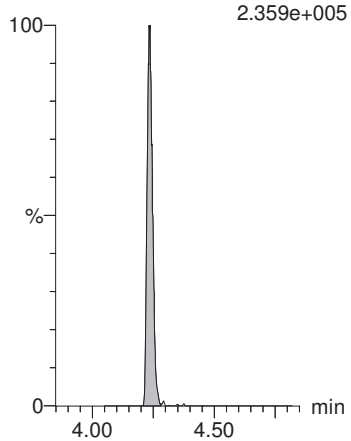

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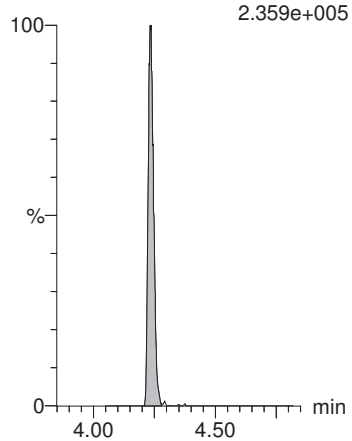
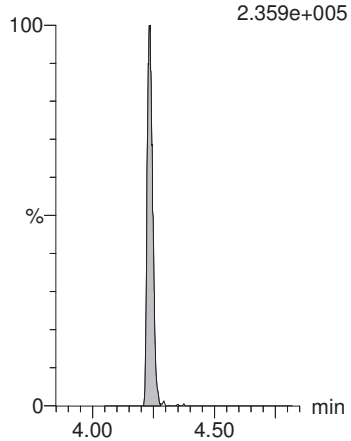
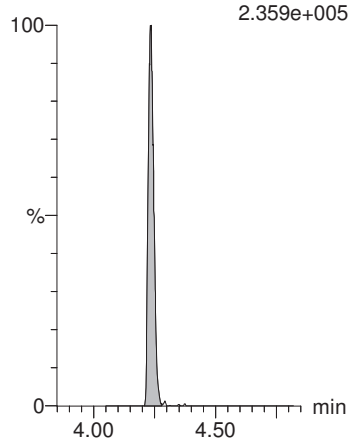


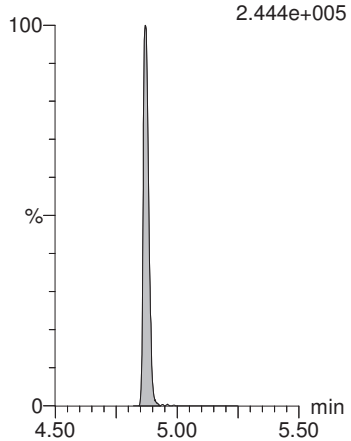
13C2-PFOA



13C2-PFOA



13C2-PFDA



CGH 7/25/2018

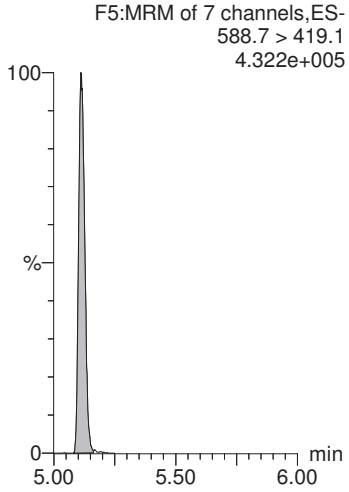
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-5.qld

Last Altered: Wednesday, July 25, 2018 14:21:32 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:22:05 Pacific Daylight Time

Name: 180725G1_5, Date: 25-Jul-2018, Time: 09:06:11, ID: 1801824-06 CBD-1FB25-0718 0.25439, Description: CBD-1FB25-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-6.qld

Last Altered: Wednesday, July 25, 2018 14:24:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:25:23 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_6, Date: 25-Jul-2018, Time: 09:19:03, ID: 1801824-07 CBD-1RW26-0718 0.25368, Description: CBD-1RW26-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		9.60e3	0.254		2.90				
2	2	PFHxA	312.7 > 268.8	7.19e1	5.90e3	0.254		3.28	3.28	0.122	0.591	
3	3	PFHpA	362.7 > 318.8	1.21e1	5.90e3	0.254		3.82	3.82	0.0206	0.0926	
4	4	PFHxS	398.7 > 80.7	1.78e1	9.60e3	0.254		3.94	3.94	0.0531	0.185	
5	5	PFOA	412.8 > 369.0	6.12e1	5.90e3	0.254		4.23	4.24	0.104	0.561	
6	6	PFNA	462.9 > 419.1		5.90e3	0.254		4.58				
7	7	PFOS	498.8 >80.7		9.60e3	0.254		4.63				
8	8	PFDA	512.8 > 469.0	9.92e0	5.90e3	0.254		4.87	4.86	0.0168	0.0761	
9	9	N-MeFOSAA	569.7 > 419.0		1.00e4	0.254		4.98				
10	10	N-EtFOSAA	583.6 >419.1		1.00e4	0.254		5.11				
11	11	PFUnA	562.7 > 518.9		5.90e3	0.254		5.12				
12	12	PFDoA	612.5 > 319.0		5.90e3	0.254		5.37				
13	13	PFTrDA	662.4 > 618.7		5.90e3	0.254		5.58				
14	14	PFTeDA	712.2>668.4		5.90e3	0.254		5.75				
15	15	13C2-PFHxA	314.8 > 269.9	4.55e3	5.90e3	0.254	0.753	3.40	3.28	7.72	40.5	102.6
16	16	13C2-PFDA	514.8 > 470.0	5.79e3	5.90e3	0.254	1.023	4.83	4.87	9.81	37.8	96.0
17	17	d5-N-EtFOSAA	588.7> 419.1	1.09e4	1.00e4	0.254	1.264	4.98	5.11	43.5	136	86.1
18	18	13C2-PFOA	414.8 > 370.1	5.90e3	5.90e3	0.254	1.000	4.24	4.24	10.0	39.4	100.0
19	19	13C4-PFOS	502.8>80.7	9.60e3	9.60e3	0.254	1.000	4.64	4.64	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.00e4	1.00e4	0.254	1.000	4.99	4.98	40.0	158	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

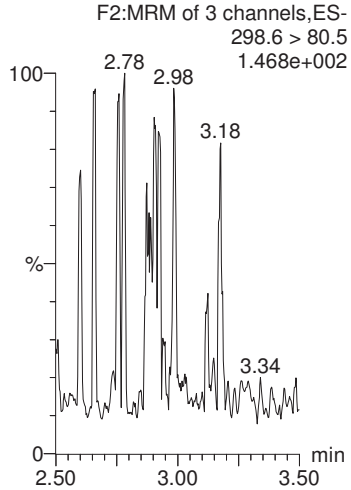
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-6.qld

Last Altered: Wednesday, July 25, 2018 14:24:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:25:23 Pacific Daylight Time

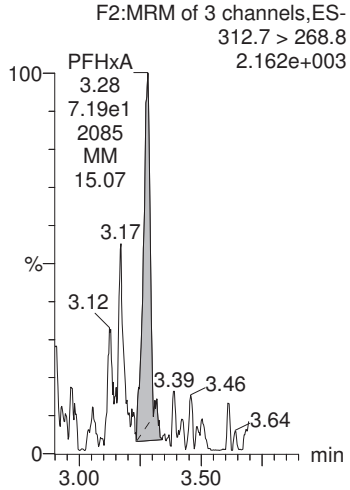
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_6, Date: 25-Jul-2018, Time: 09:19:03, ID: 1801824-07 CBD-1RW26-0718 0.25368, Description: CBD-1RW26-0718

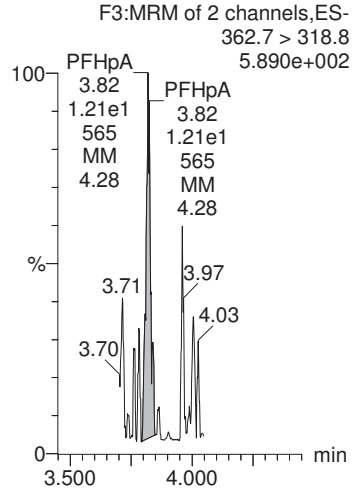
PFBS



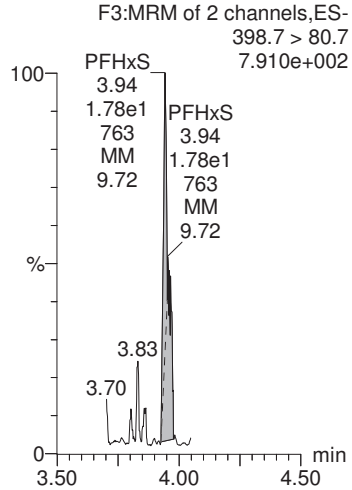
PFHxA



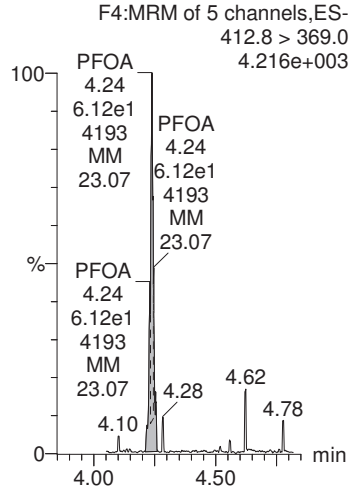
PFHpA



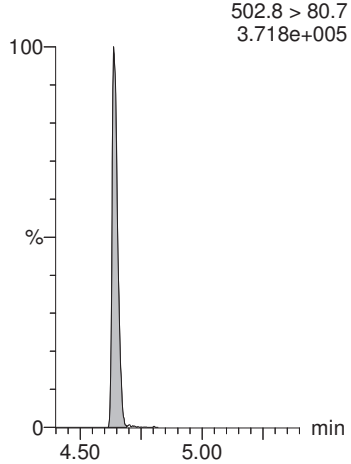
PFHxS



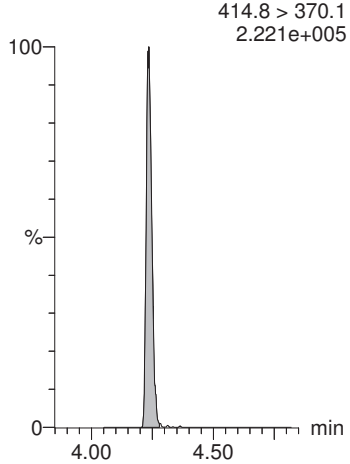
PFOA



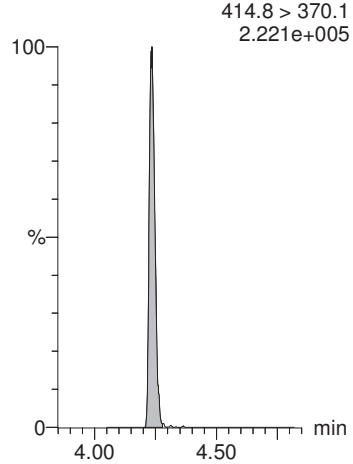
13C4-PFOS



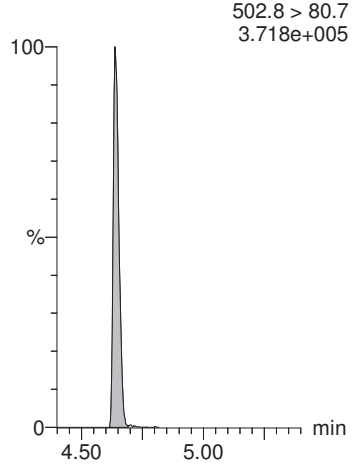
13C2-PFOA



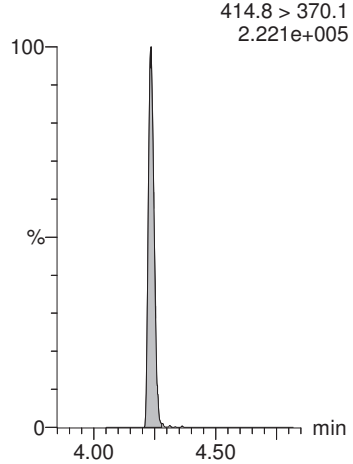
13C2-PFOA



13C4-PFOS



13C2-PFOA



CGH 7/25/2018

Vista Analytical Laboratory

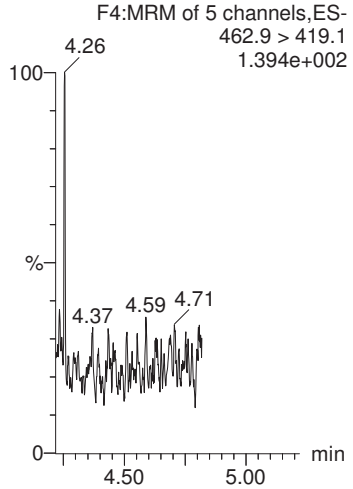
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-6.qld

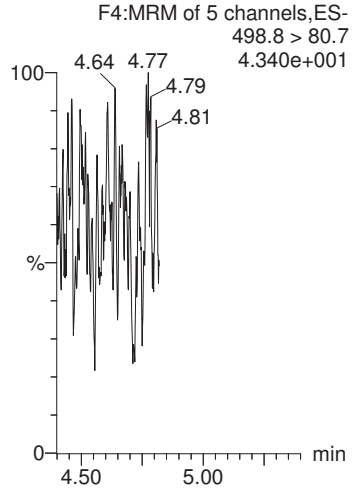
Last Altered: Wednesday, July 25, 2018 14:24:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:25:23 Pacific Daylight Time

Name: 180725G1_6, Date: 25-Jul-2018, Time: 09:19:03, ID: 1801824-07 CBD-1RW26-0718 0.25368, Description: CBD-1RW26-0718

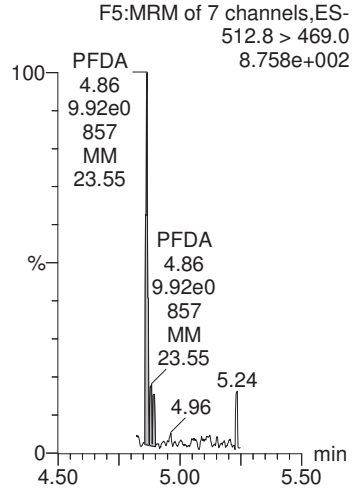
PFNA



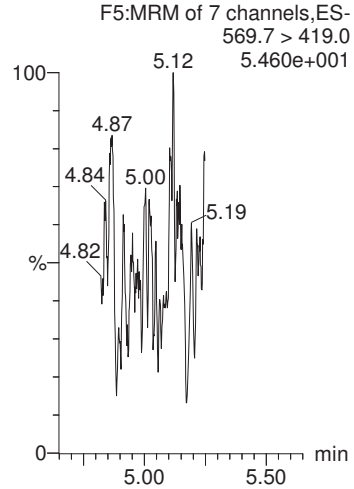
PFOS



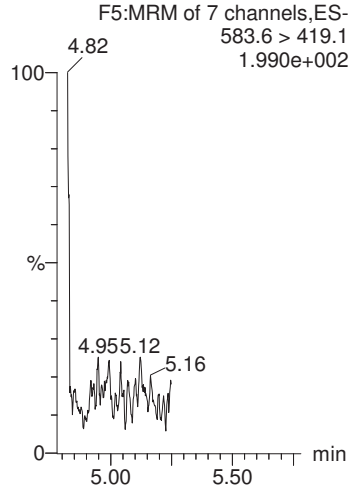
PFDA



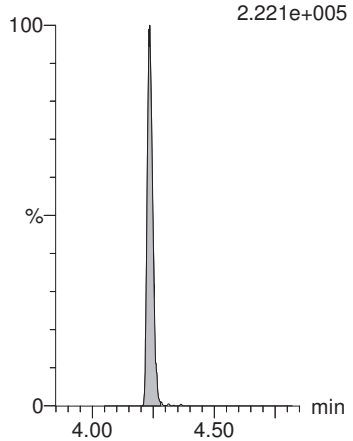
N-MeFOSAA



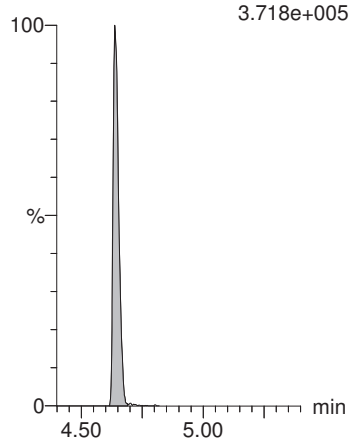
N-EtFOSAA



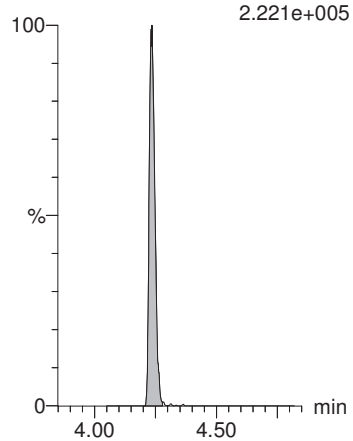
13C2-PFOA



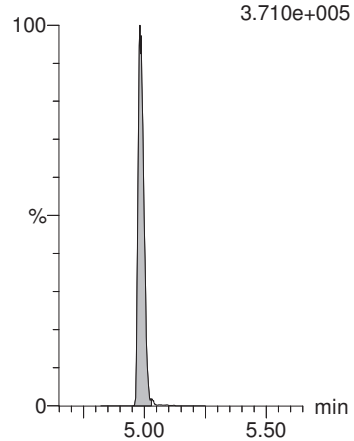
13C4-PFOS



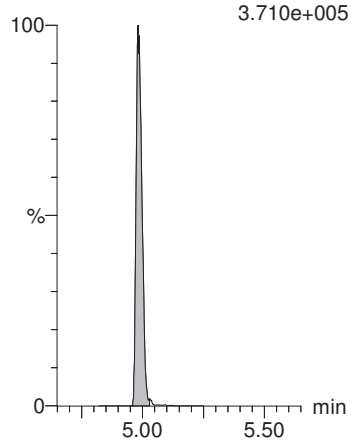
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

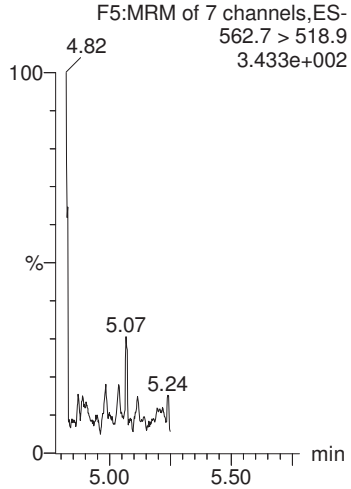
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-6.qld

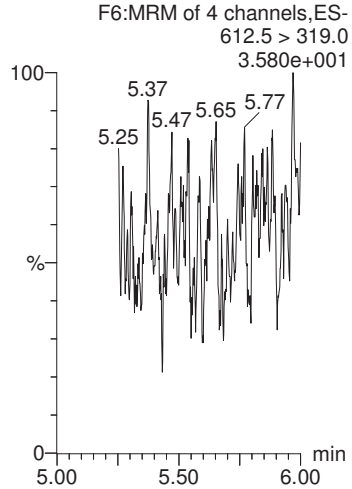
Last Altered: Wednesday, July 25, 2018 14:24:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:25:23 Pacific Daylight Time

Name: 180725G1_6, Date: 25-Jul-2018, Time: 09:19:03, ID: 1801824-07 CBD-1RW26-0718 0.25368, Description: CBD-1RW26-0718

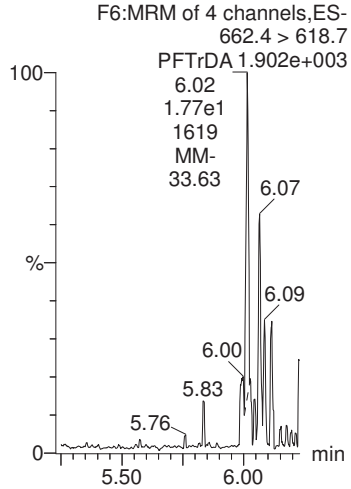
PFUnA



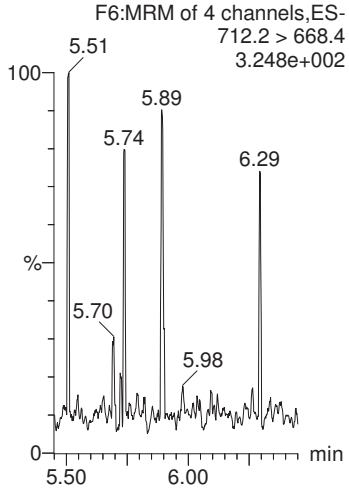
PFDoA



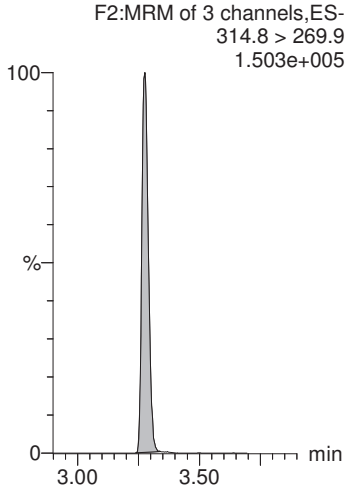
PFTrDA



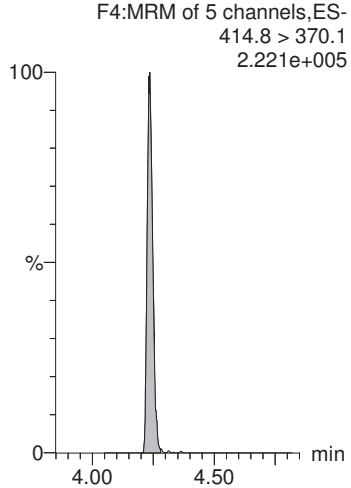
PFTeDA



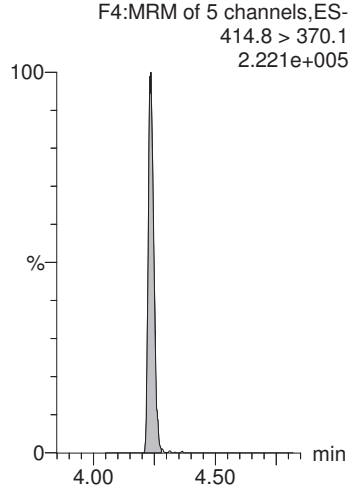
13C2-PFHxA



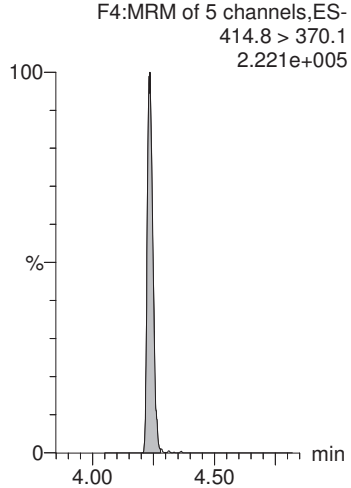
13C2-PFOA



13C2-PFOA



13C2-PFOA



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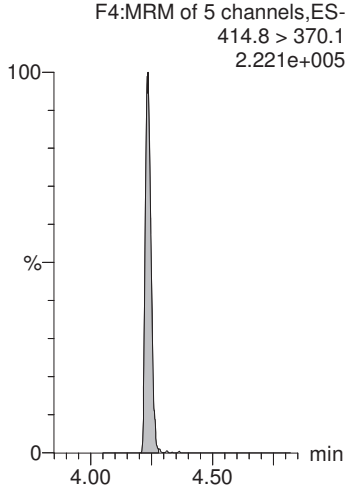
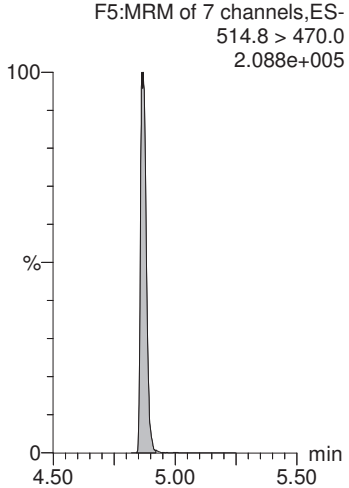


13C2-PFDA



CGH 7/25/2018

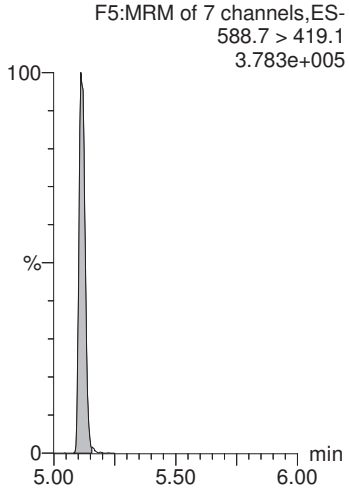
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-6.qld

Last Altered: Wednesday, July 25, 2018 14:24:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:25:23 Pacific Daylight Time

Name: 180725G1_6, Date: 25-Jul-2018, Time: 09:19:03, ID: 1801824-07 CBD-1RW26-0718 0.25368, Description: CBD-1RW26-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-7.qld

Last Altered: Friday, July 27, 2018 11:12:13 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:13:03 Pacific Daylight Time

Method: Y:\G1.pro\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: Y:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_7, Date: 25-Jul-2018, Time: 09:31:53, ID: 1801824-08 CBD-1FB26-0718 0.24525, Description: CBD-1FB26-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.41e0	1.04e4	0.255		2.90	2.91	0.00390	0.0160	
2	2	PFHxA	312.7 > 268.8	2.16e1	6.74e3	0.255		3.30	3.28	0.0320	0.154	
3	3	PFHpA	362.7 > 318.8		6.74e3	0.255		3.81				
4	4	PFHxS	398.7 > 80.7		1.04e4	0.255		3.92				
5	5	PFOA	412.8 > 369.0		6.74e3	0.255		4.24				
6	6	PFNA	462.9 > 419.1		6.74e3	0.255		4.60				
7	7	PFOS	498.8 >80.7		1.04e4	0.255		4.64				
8	8	PFDA	512.8 > 469.0		6.74e3	0.255		4.88				
9	9	N-MeFOSAA	569.7 > 419.0		1.05e4	0.255		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.05e4	0.255		5.11				
11	11	PFUnA	562.7 > 518.9		6.74e3	0.255		5.12				
12	12	PFDoA	612.5 > 319.0		6.74e3	0.255		5.36				
13	13	PFTrDA	662.4 > 618.7		6.74e3	0.255		5.57				
14	14	PFTeDA	712.2>668.4		6.74e3	0.255		5.76				
15	15	13C2-PFHxA	314.8 > 269.9	5.29e3	6.74e3	0.255	0.753	3.40	3.28	7.86	40.9	104.4
16	16	13C2-PFDA	514.8 > 470.0	6.56e3	6.74e3	0.255	1.023	4.83	4.87	9.73	37.3	95.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.35e4	1.05e4	0.255	1.264	4.99	5.11	51.3	159	101.4
18	18	13C2-PFOA	414.8 > 370.1	6.74e3	6.74e3	0.255	1.000	4.28	4.23	10.0	39.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.04e4	1.04e4	0.255	1.000	4.71	4.64	28.7	112	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.05e4	1.05e4	0.255	1.000	5.04	4.99	40.0	157	100.0

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-7.qld

Last Altered: Friday, July 27, 2018 11:12:13 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:13:03 Pacific Daylight Time

Method: Y:\G1.pro\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: Y:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_7, Date: 25-Jul-2018, Time: 09:31:53, ID: 1801824-08 CBD-1FB26-0718 0.24525, Description: CBD-1FB26-0718

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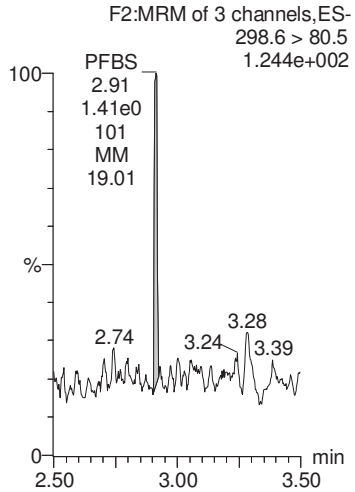

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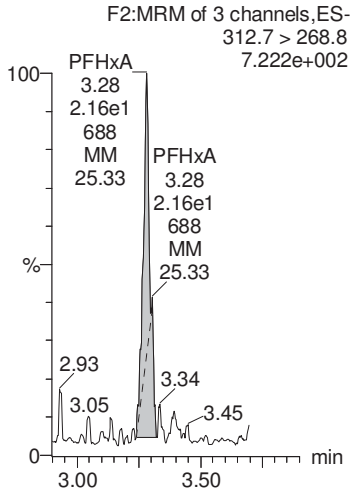

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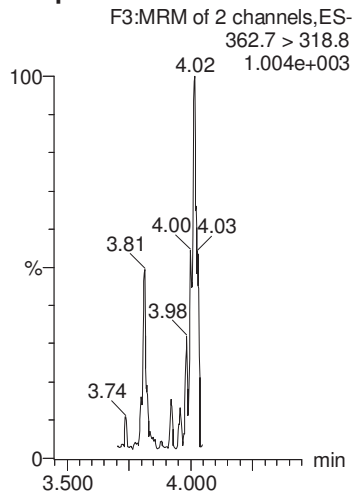

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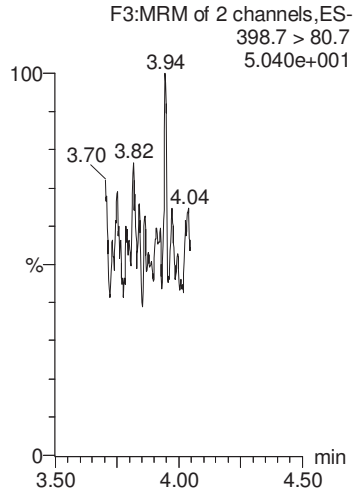

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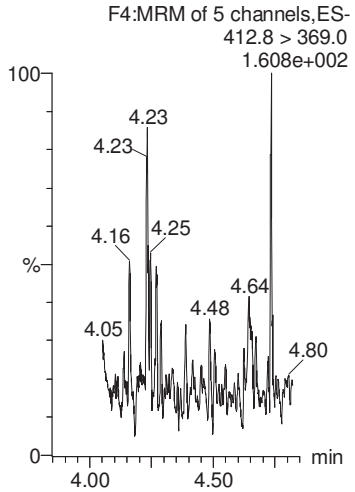

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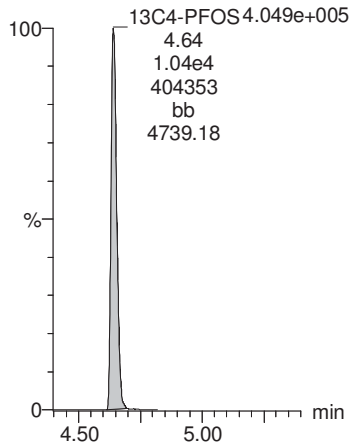

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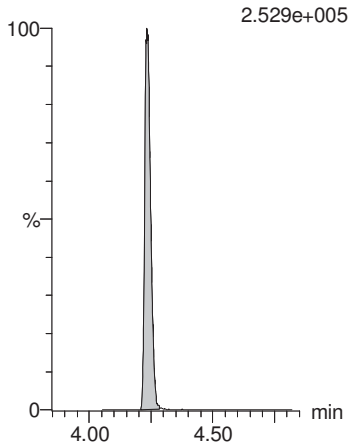

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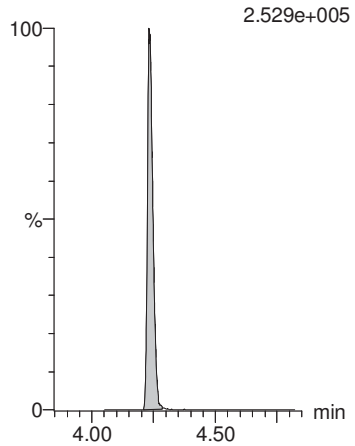

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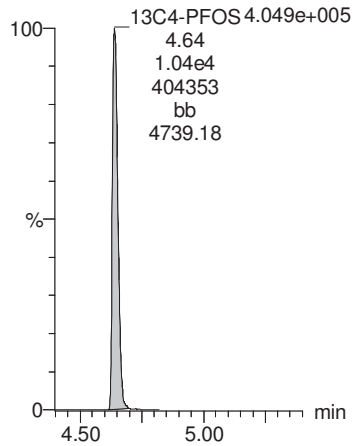

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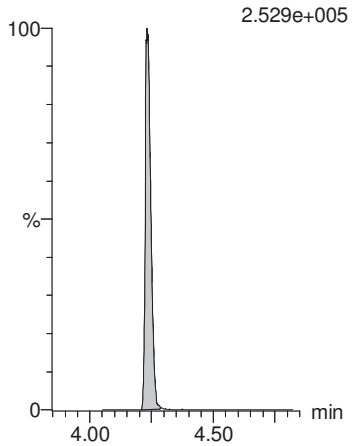

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-7.qld

Last Altered: Friday, July 27, 2018 11:12:13 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:13:03 Pacific Daylight Time

Name: 180725G1_7, Date: 25-Jul-2018, Time: 09:31:53, ID: 1801824-08 CBD-1FB26-0718 0.24525, Description: CBD-1FB26-0718

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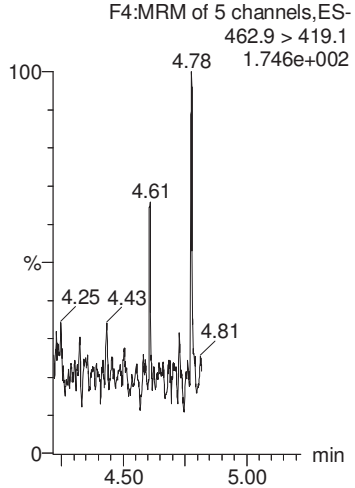

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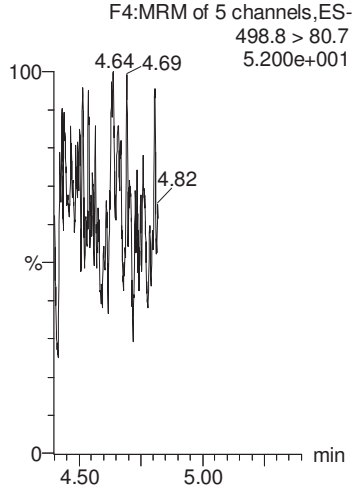

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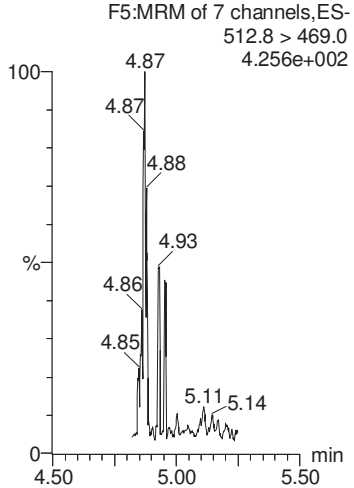

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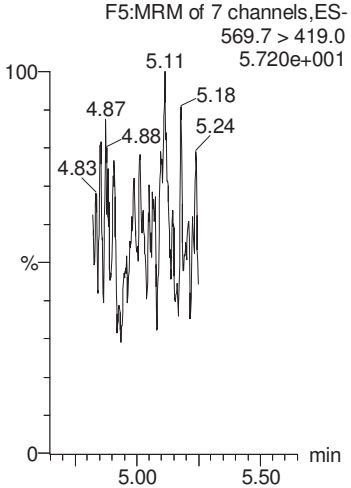

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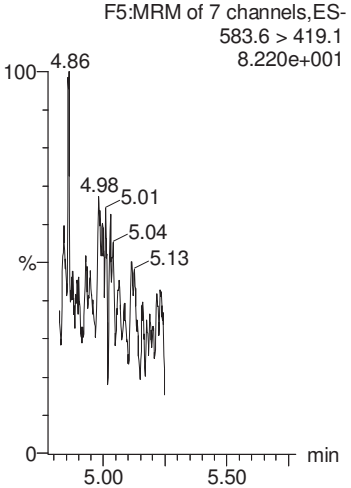

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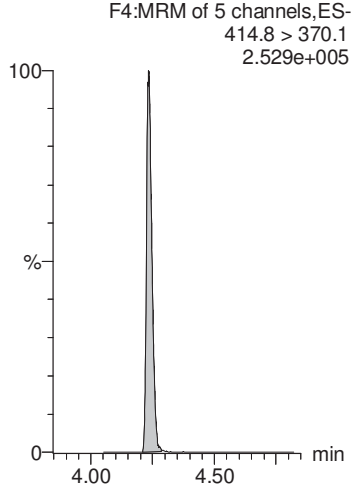

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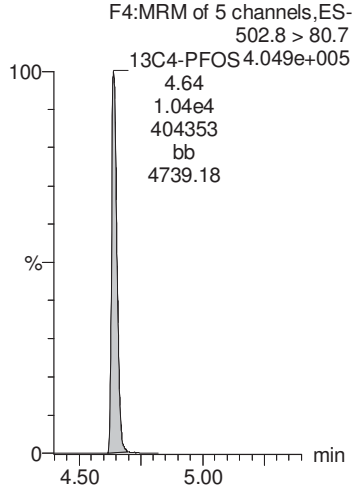

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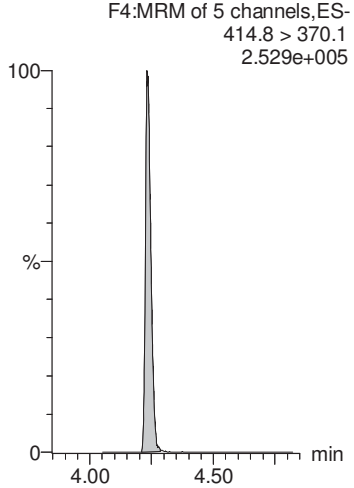

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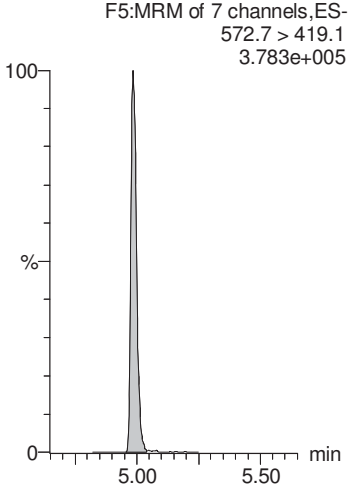

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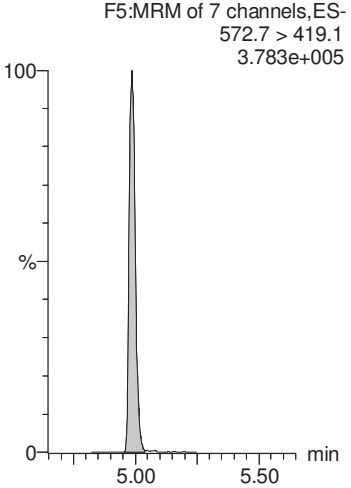

AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

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Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-7.qld

Last Altered: Friday, July 27, 2018 11:12:13 Pacific Daylight Time
Printed: Friday, July 27, 2018 11:13:03 Pacific Daylight Time

Name: 180725G1_7, Date: 25-Jul-2018, Time: 09:31:53, ID: 1801824-08 CBD-1FB26-0718 0.24525, Description: CBD-1FB26-0718

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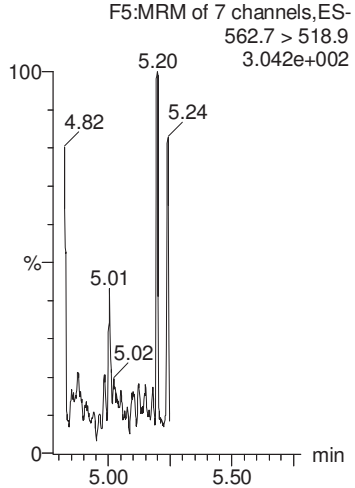

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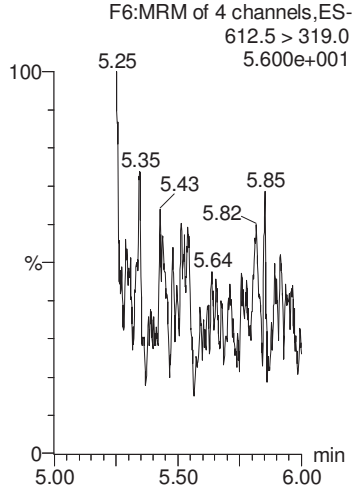

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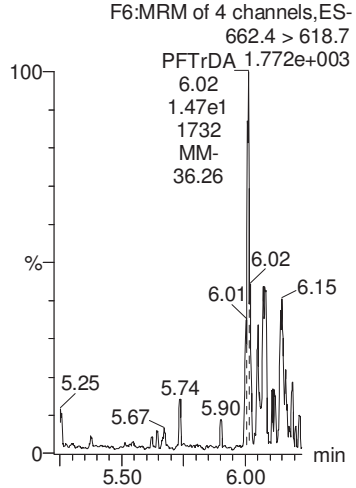

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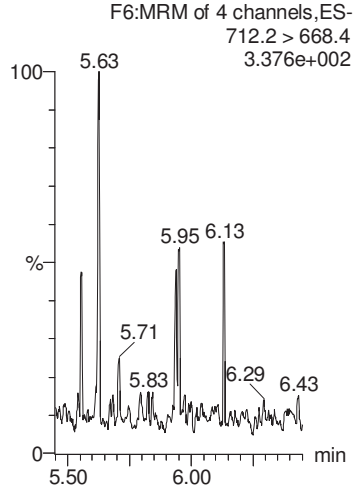

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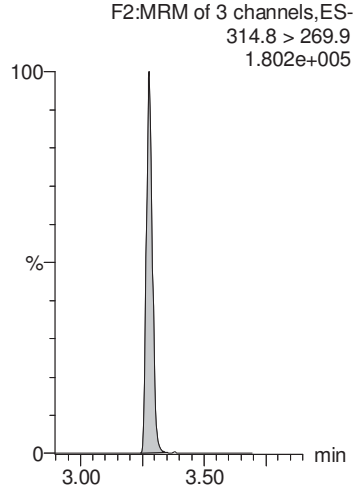

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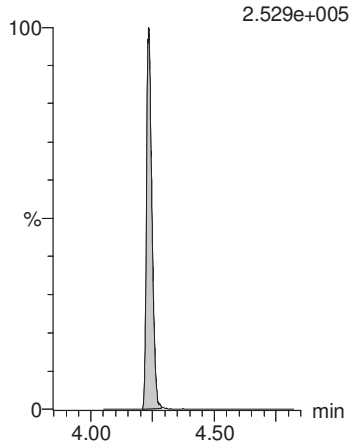

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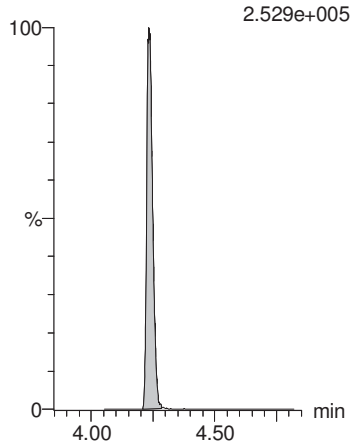

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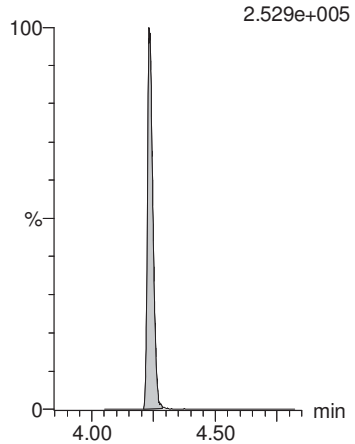

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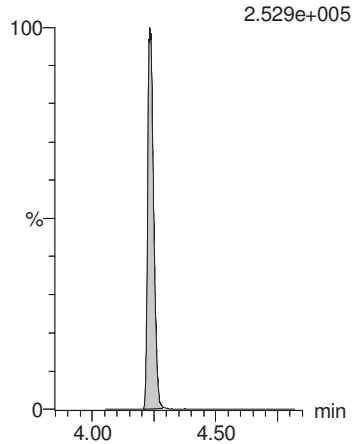

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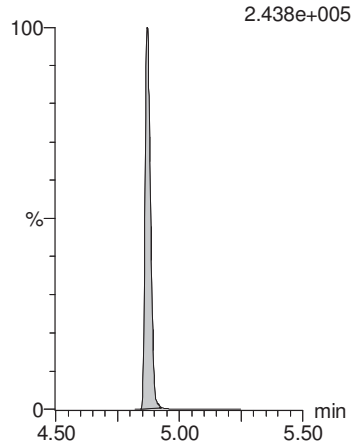

AMR FOR CGH 7/27/2018

MMM 7/27/2018

Dataset: Y:\G1.PRO\Results\2018\180725G1\180725G1-7.qld

Last Altered: Friday, July 27, 2018 11:12:13 Pacific Daylight Time
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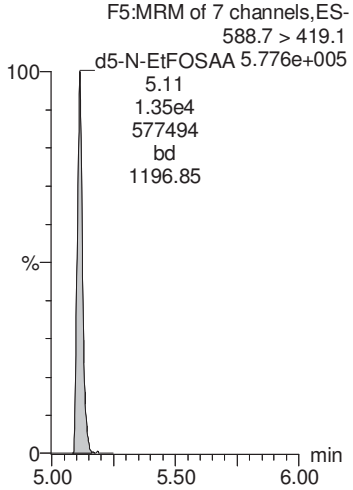
Name: 180725G1_7, Date: 25-Jul-2018, Time: 09:31:53, ID: 1801824-08 CBD-1FB26-0718 0.24525, Description: CBD-1FB26-0718

d5-N-EtFOSAA



AMR FOR CGH 7/27/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-8.qld

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Printed: Wednesday, July 25, 2018 14:31:25 Pacific Daylight Time

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_8, Date: 25-Jul-2018, Time: 09:44:42, ID: 1801824-09 CBD-1RW27-0718 0.25251, Description: CBD-1RW27-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.86e1	9.14e3	0.253		2.90	2.91	0.0585	0.244	
2	2	PFHxA	312.7 > 268.8	4.07e1	6.13e3	0.253		3.27	3.28	0.0664	0.323	
3	3	PFHpA	362.7 > 318.8	1.11e1	6.13e3	0.253		3.81	3.82	0.0181	0.0818	
4	4	PFHxS	398.7 > 80.7	1.15e0	9.14e3	0.253		3.94	3.94	0.00360	0.0126	
5	5	PFOA	412.8 > 369.0	1.78e1	6.13e3	0.253		4.22	4.23	0.0291	0.158	
6	6	PFNA	462.9 > 419.1		6.13e3	0.253		4.57				
7	7	PFOS	498.8 >80.7		9.14e3	0.253		4.63				
8	8	PFDA	512.8 > 469.0	2.10e1	6.13e3	0.253		4.86	4.87	0.0343	0.156	
9	9	N-MeFOSAA	569.7 > 419.0		8.76e3	0.253		4.98				
10	10	N-EtFOSAA	583.6 >419.1		8.76e3	0.253		5.11				
11	11	PFUnA	562.7 > 518.9		6.13e3	0.253		5.11				
12	12	PFDoA	612.5 > 319.0		6.13e3	0.253		5.36				
13	13	PFTrDA	662.4 > 618.7		6.13e3	0.253		5.57				
14	14	PFTeDA	712.2>668.4		6.13e3	0.253		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.52e3	6.13e3	0.253	0.753	3.40	3.28	7.37	38.8	97.9
16	16	13C2-PFDA	514.8 > 470.0	5.82e3	6.13e3	0.253	1.023	4.83	4.87	9.50	36.8	92.9
17	17	d5-N-EtFOSAA	588.7> 419.1	1.04e4	8.76e3	0.253	1.264	4.98	5.11	47.7	149	94.3
18	18	13C2-PFOA	414.8 > 370.1	6.13e3	6.13e3	0.253	1.000	4.24	4.23	10.0	39.6	100.0
19	19	13C4-PFOS	502.8>80.7	9.14e3	9.14e3	0.253	1.000	4.64	4.64	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	8.76e3	8.76e3	0.253	1.000	4.99	4.98	40.0	158	100.0

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Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-8.qld

Last Altered: Wednesday, July 25, 2018 14:30:53 Pacific Daylight Time
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

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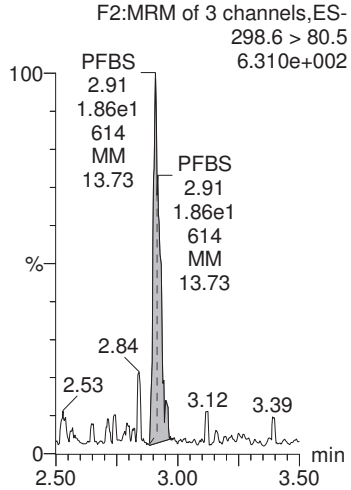

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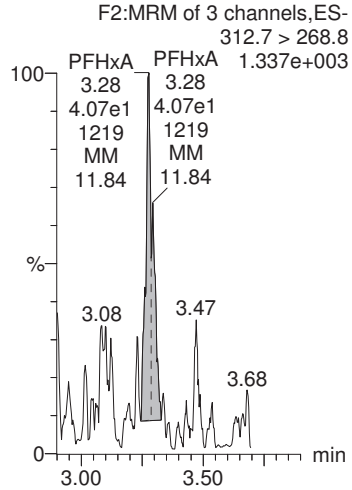

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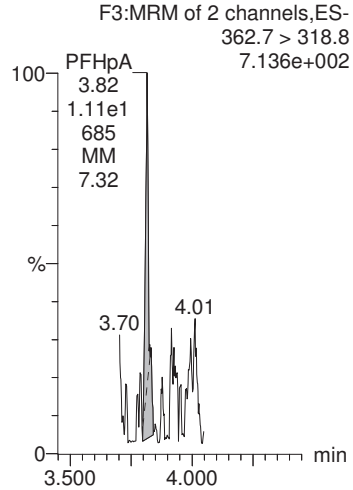

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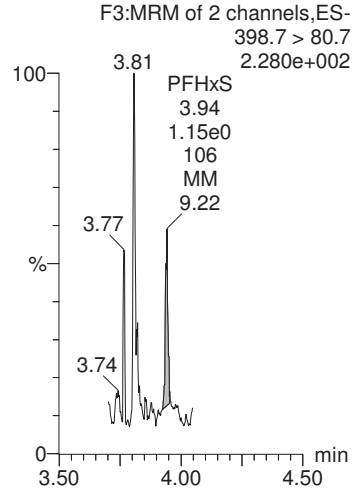

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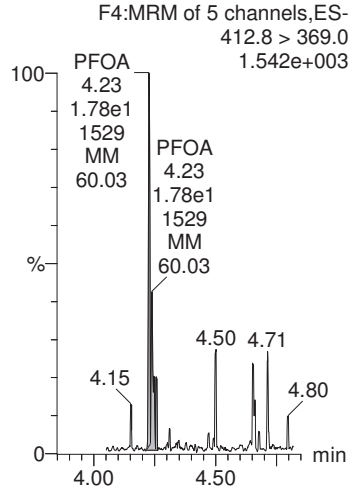

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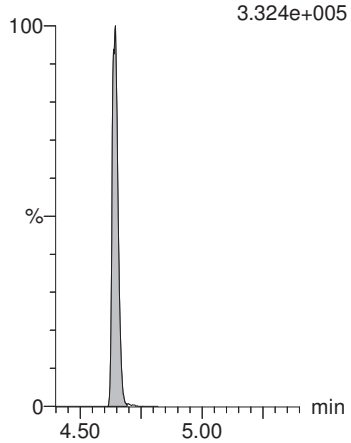

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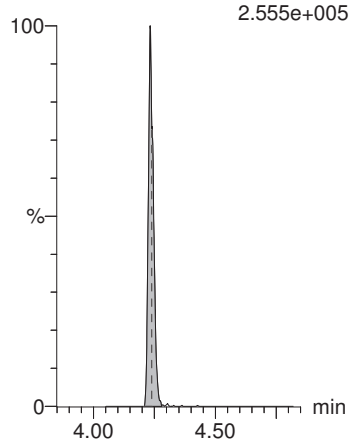

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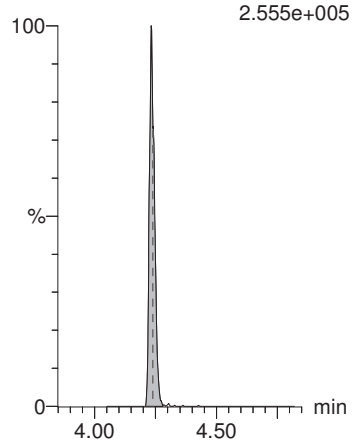

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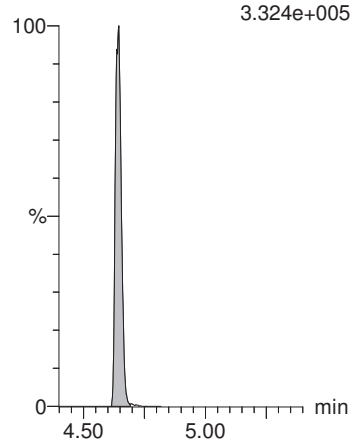

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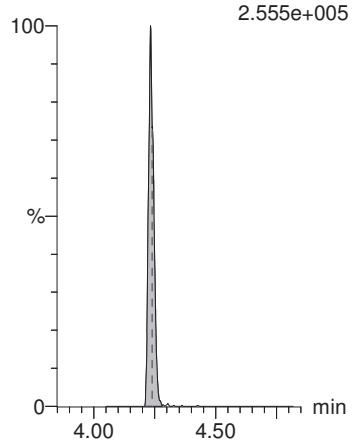

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-8.qld

Last Altered: Wednesday, July 25, 2018 14:30:53 Pacific Daylight Time
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Name: 180725G1_8, Date: 25-Jul-2018, Time: 09:44:42, ID: 1801824-09 CBD-1RW27-0718 0.25251, Description: CBD-1RW27-0718

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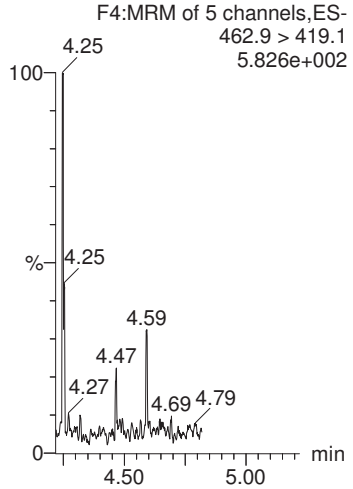

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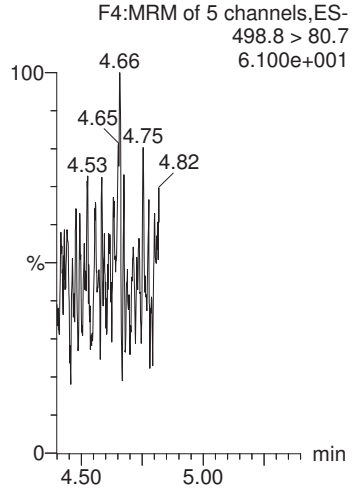
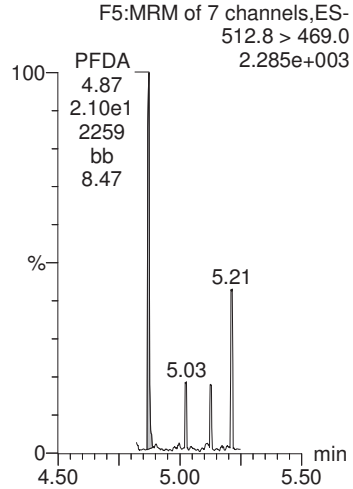
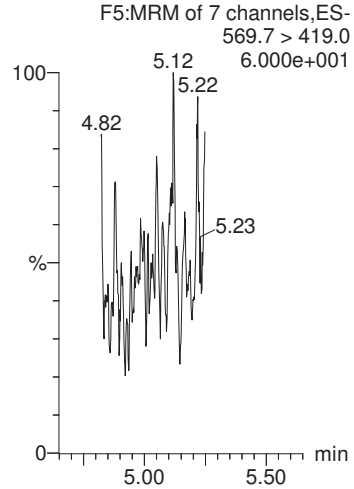


PFDA



N-MeFOSAA



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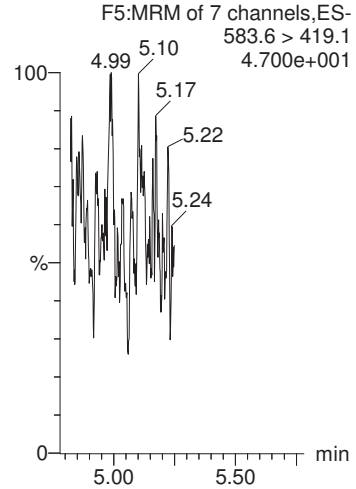
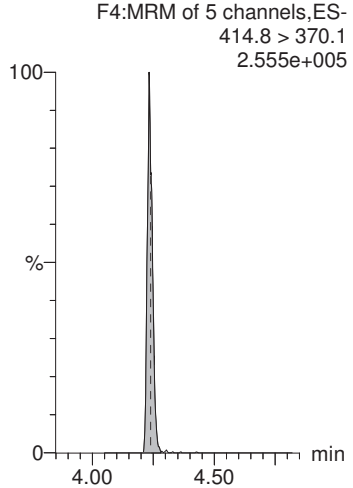
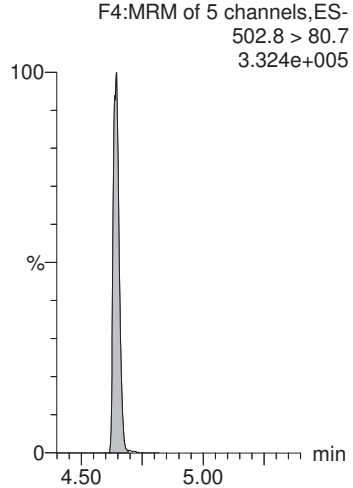


13C2-PFOA



13C4-PFOS



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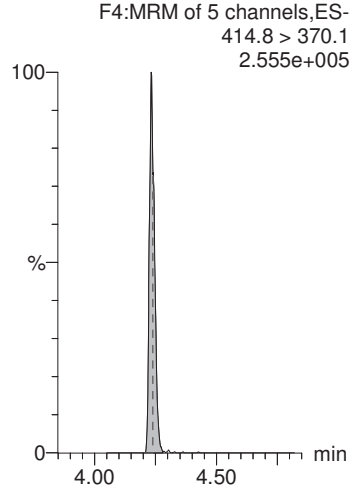

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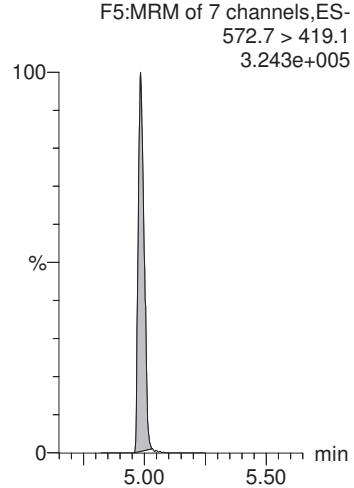

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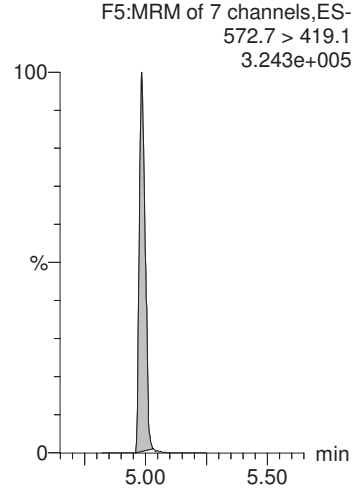

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-8.qld

Last Altered: Wednesday, July 25, 2018 14:30:53 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:31:25 Pacific Daylight Time

Name: 180725G1_8, Date: 25-Jul-2018, Time: 09:44:42, ID: 1801824-09 CBD-1RW27-0718 0.25251, Description: CBD-1RW27-0718

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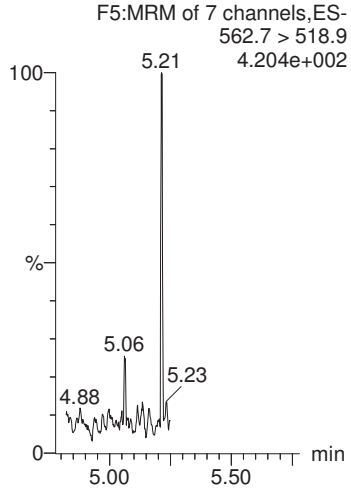

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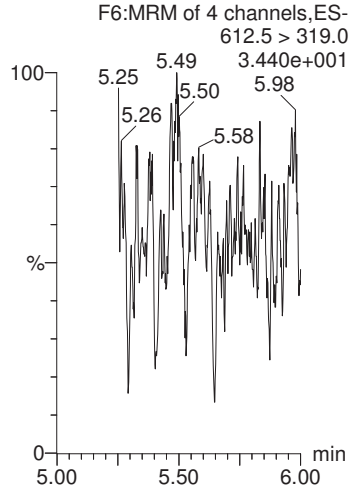

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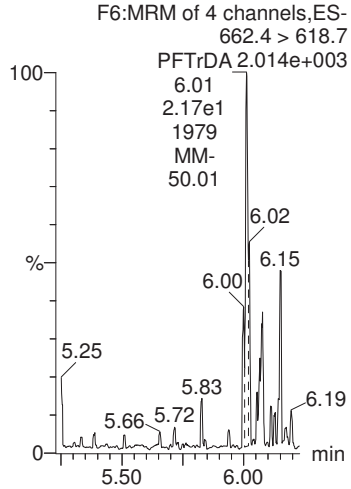
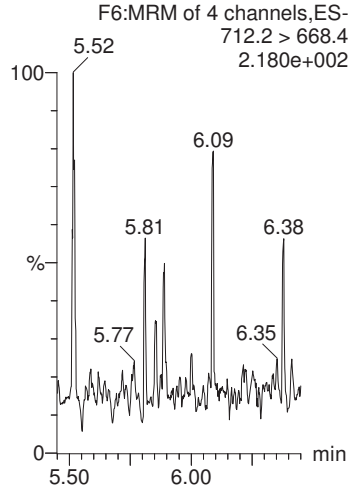


PFTeDA



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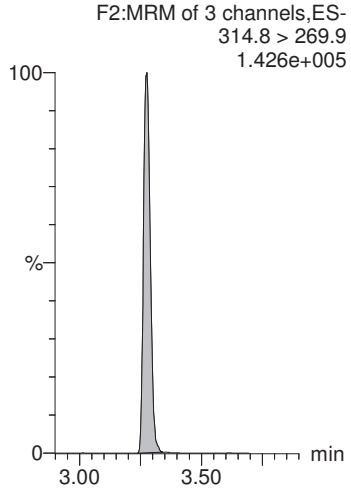

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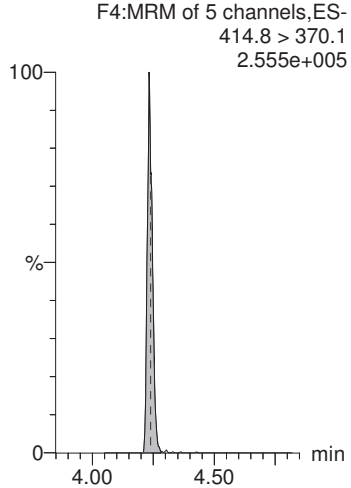

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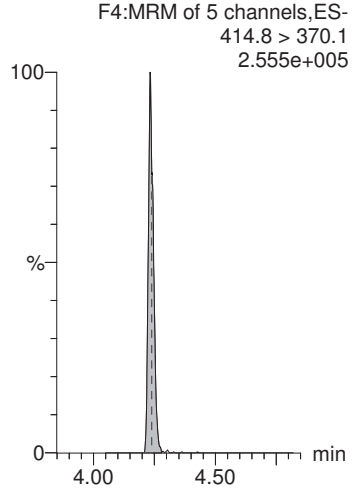

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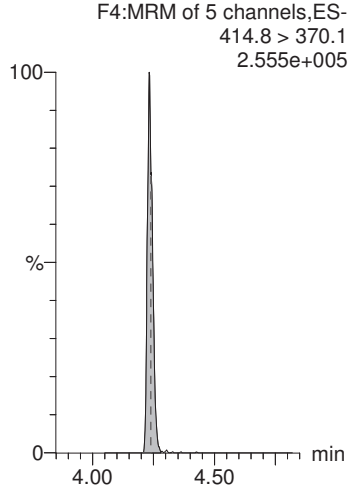

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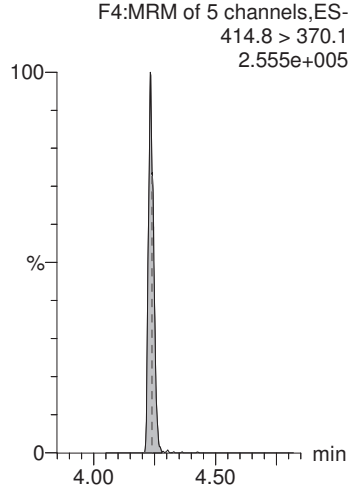

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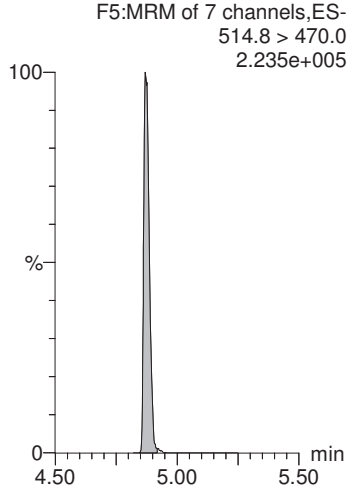


CGH 7/25/2018

Vista Analytical Laboratory

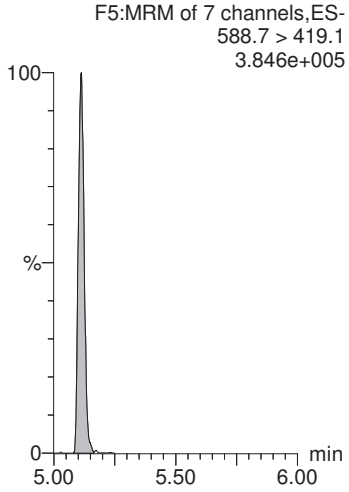
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-8.qld

Last Altered: Wednesday, July 25, 2018 14:30:53 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:31:25 Pacific Daylight Time

Name: 180725G1_8, Date: 25-Jul-2018, Time: 09:44:42, ID: 1801824-09 CBD-1RW27-0718 0.25251, Description: CBD-1RW27-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-9.qld

Last Altered: Wednesday, July 25, 2018 14:33:16 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:33:51 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_9, Date: 25-Jul-2018, Time: 09:57:31, ID: 1801824-10 CBD-1FB27-0718 0.25608, Description: CBD-1FB27-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.22e4	0.256		2.90				
2	2	PFHxA	312.7 > 268.8	1.83e1	7.67e3	0.256		3.28	3.27	0.0239	0.115	
3	3	PFHpA	362.7 > 318.8	1.46e1	7.67e3	0.256		3.82	3.82	0.0191	0.0849	
4	4	PFHxS	398.7 > 80.7		1.22e4	0.256		3.94				
5	5	PFOA	412.8 > 369.0	2.37e1	7.67e3	0.256		4.23	4.24	0.0309	0.166	
6	6	PFNA	462.9 > 419.1		7.67e3	0.256		4.58				
7	7	PFOS	498.8 >80.7		1.22e4	0.256		4.63				
8	8	PFDA	512.8 > 469.0	6.10e0	7.67e3	0.256		4.87	4.87	0.00796	0.0356	
9	9	N-MeFOSAA	569.7 > 419.0		1.20e4	0.256		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.20e4	0.256		5.12				
11	11	PFUnA	562.7 > 518.9		7.67e3	0.256		5.12				
12	12	PFDoA	612.5 > 319.0		7.67e3	0.256		5.37				
13	13	PFTrDA	662.4 > 618.7		7.67e3	0.256		5.58				
14	14	PFTeDA	712.2>668.4		7.67e3	0.256		5.75				
15	15	13C2-PFHxA	314.8 > 269.9	5.93e3	7.67e3	0.256	0.753	3.40	3.28	7.73	40.1	102.8
16	16	13C2-PFDA	514.8 > 470.0	6.89e3	7.67e3	0.256	1.023	4.83	4.87	8.98	34.3	87.8
17	17	d5-N-EtFOSAA	588.7> 419.1	1.48e4	1.20e4	0.256	1.264	4.99	5.11	49.4	153	97.7
18	18	13C2-PFOA	414.8 > 370.1	7.67e3	7.67e3	0.256	1.000	4.24	4.24	10.0	39.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.22e4	1.22e4	0.256	1.000	4.64	4.64	28.7	112	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.20e4	1.20e4	0.256	1.000	4.99	4.99	40.0	156	100.0

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Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-9.qld

Last Altered: Wednesday, July 25, 2018 14:33:16 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:33:51 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_9, Date: 25-Jul-2018, Time: 09:57:31, ID: 1801824-10 CBD-1FB27-0718 0.25608, Description: CBD-1FB27-0718

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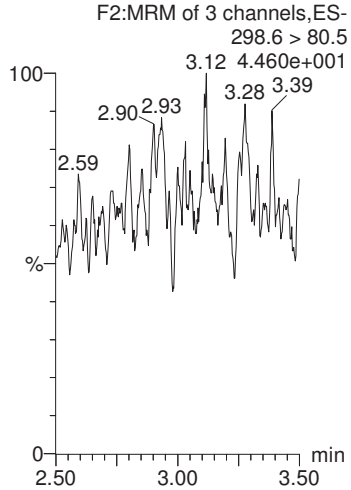
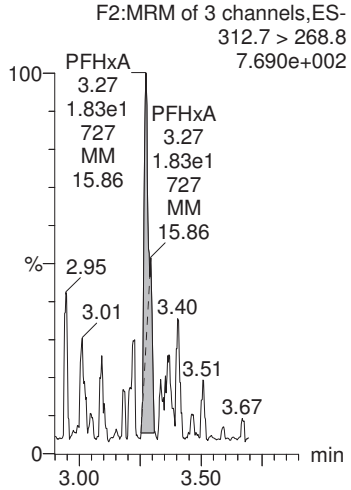
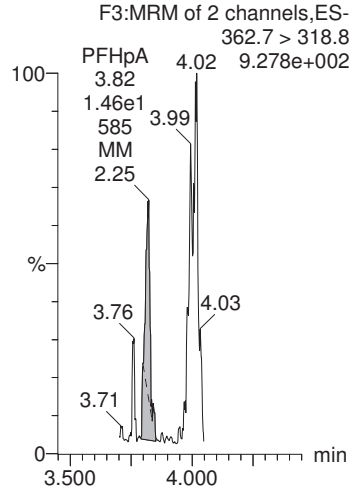


PFHxA



PFHpA



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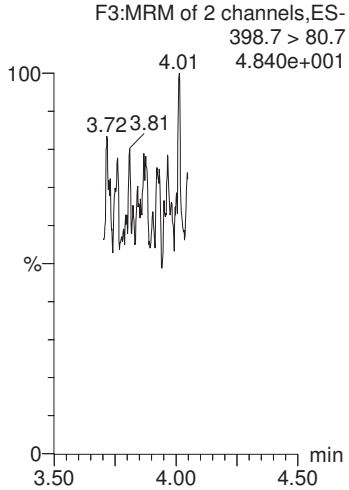
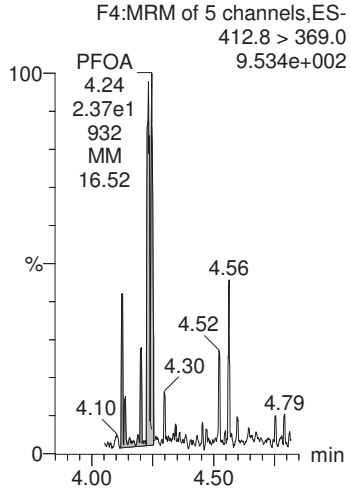


PFOA



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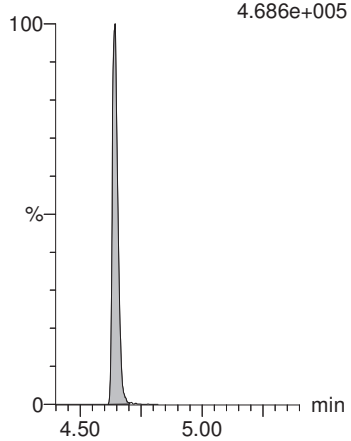

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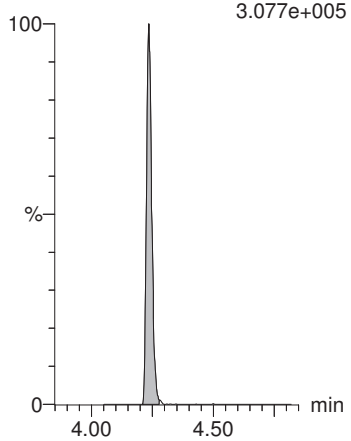

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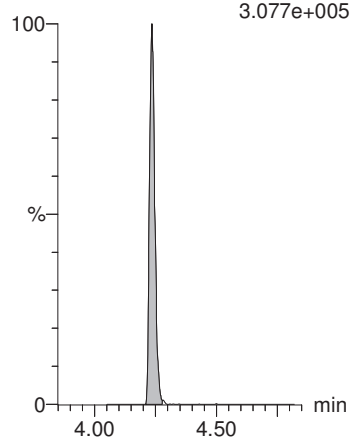

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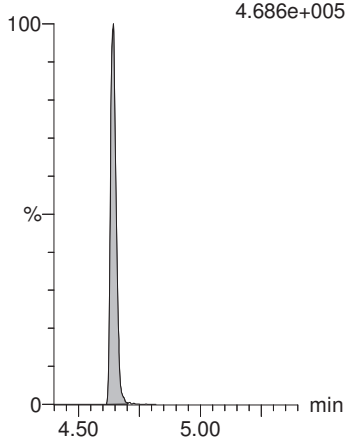

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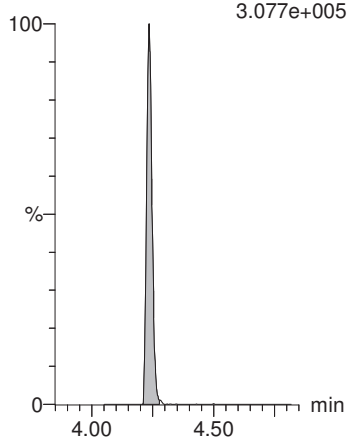

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-9.qld

Last Altered: Wednesday, July 25, 2018 14:33:16 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:33:51 Pacific Daylight Time

Name: 180725G1_9, Date: 25-Jul-2018, Time: 09:57:31, ID: 1801824-10 CBD-1FB27-0718 0.25608, Description: CBD-1FB27-0718

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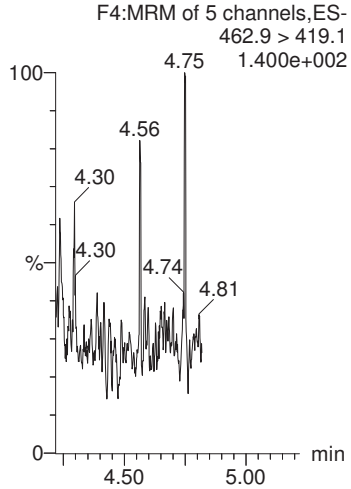

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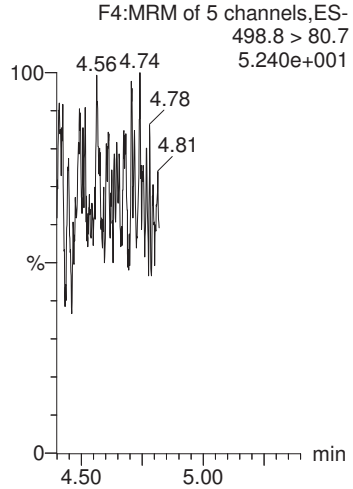

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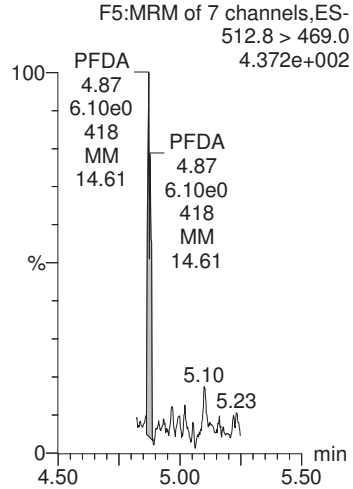

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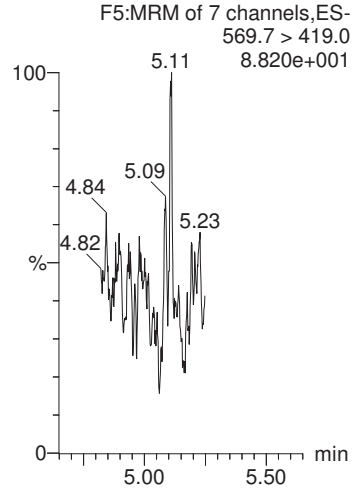

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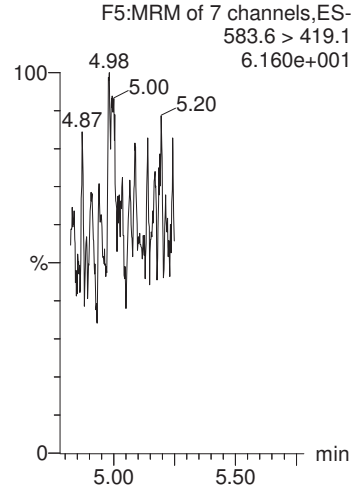

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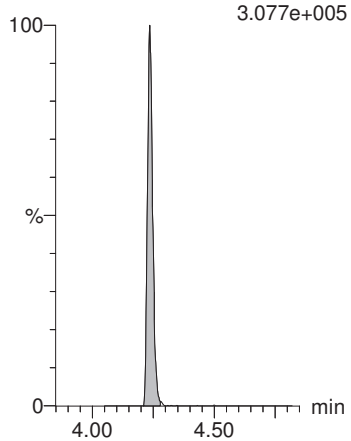

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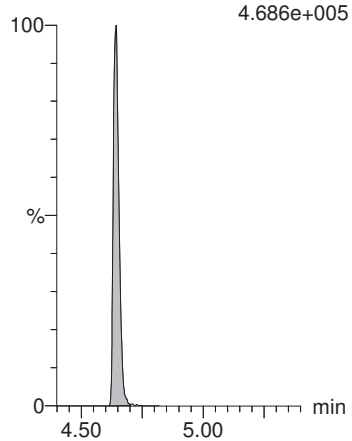

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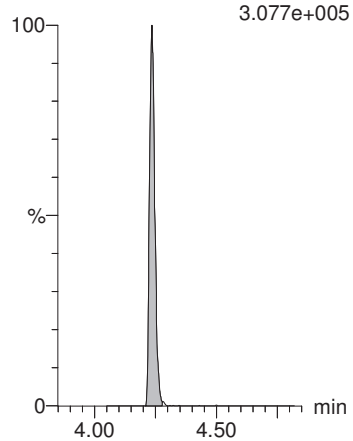

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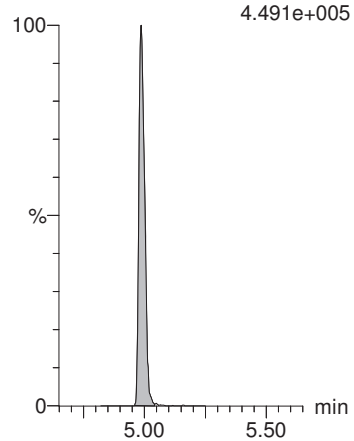

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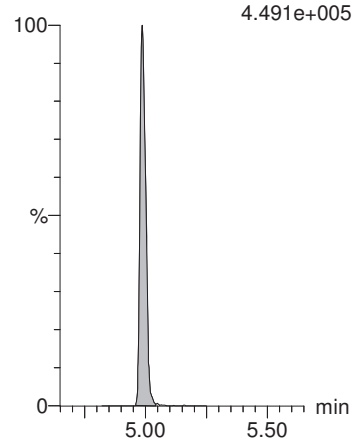

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-9.qld

Last Altered: Wednesday, July 25, 2018 14:33:16 Pacific Daylight Time
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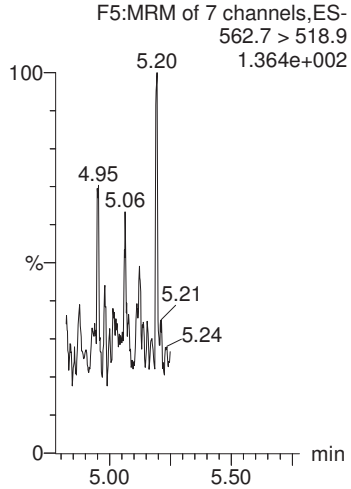
Name: 180725G1_9, Date: 25-Jul-2018, Time: 09:57:31, ID: 1801824-10 CBD-1FB27-0718 0.25608, Description: CBD-1FB27-0718

PFUnA



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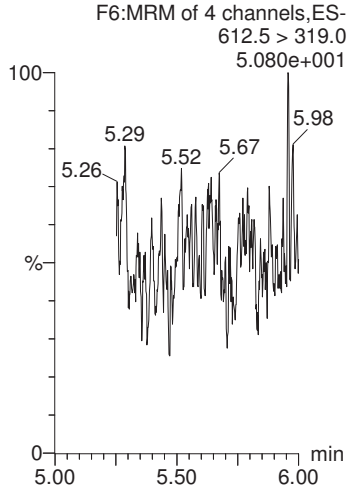
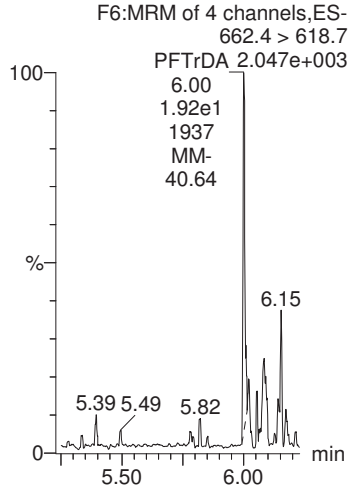


PFTrDA



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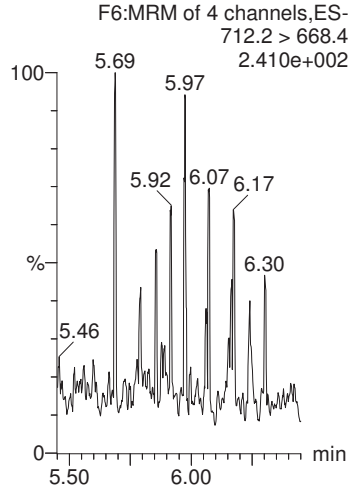
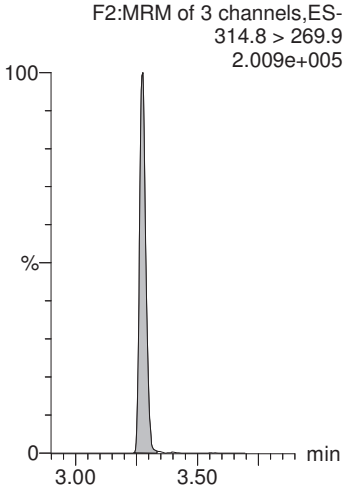
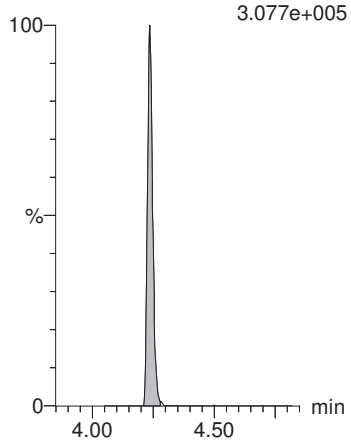


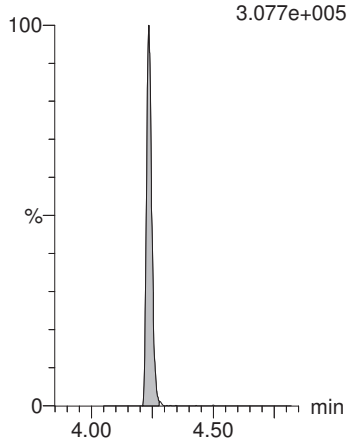
13C2-PFHxA



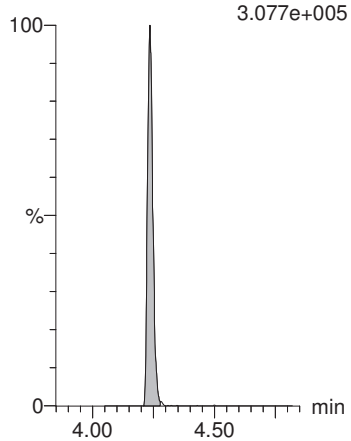
13C2-PFOA



13C2-PFOA



13C2-PFOA



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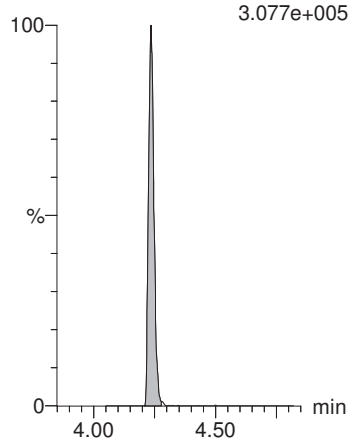
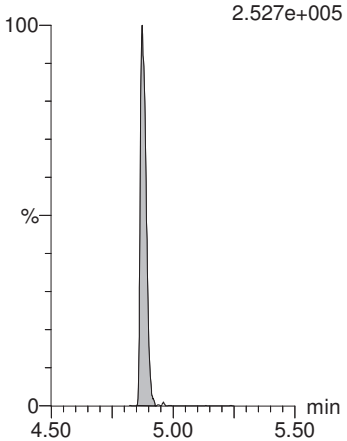


13C2-PFDA



CGH 7/25/2018

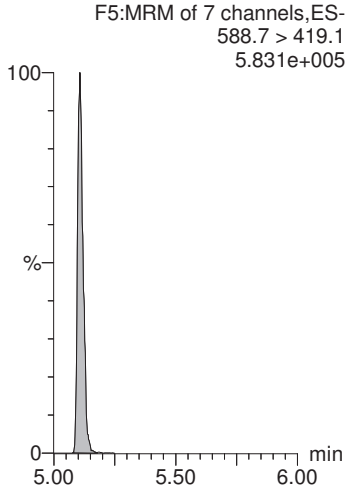
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-9.qld

Last Altered: Wednesday, July 25, 2018 14:33:16 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:33:51 Pacific Daylight Time

Name: 180725G1_9, Date: 25-Jul-2018, Time: 09:57:31, ID: 1801824-10 CBD-1FB27-0718 0.25608, Description: CBD-1FB27-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-10.qld

Last Altered: Wednesday, July 25, 2018 14:36:13 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:43:35 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_10, Date: 25-Jul-2018, Time: 10:10:21, ID: 1801824-11 CBD-1RW28-0718 0.25482, Description: CBD-1RW28-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	7.45e2	1.04e4	0.255		2.90	2.91	2.05	8.46	
2	2	PFHxA	312.7 > 268.8	1.01e3	6.72e3	0.255		3.27	3.28	1.51	7.28	
3	3	PFHpA	362.7 > 318.8	2.93e2	6.72e3	0.255		3.81	3.82	0.435	1.95	
4	4	PFHxS	398.7 > 80.7	1.17e3	1.04e4	0.255		3.94	3.94	3.22	11.2	
5	5	PFOA	412.8 > 369.0	1.71e2	6.72e3	0.255		4.22	4.23	0.254	1.37	
6	6	PFNA	462.9 > 419.1		6.72e3	0.255		4.57				
7	7	PFOS	498.8 >80.7		1.04e4	0.255		4.63				
8	8	PFDA	512.8 > 469.0	1.92e1	6.72e3	0.255		4.86	4.89	0.0285	0.128	
9	9	N-MeFOSAA	569.7 > 419.0		9.24e3	0.255		4.99				
10	10	N-EtFOSAA	583.6 >419.1		9.24e3	0.255		5.12				
11	11	PFUnA	562.7 > 518.9		6.72e3	0.255		5.11				
12	12	PFDoA	612.5 > 319.0		6.72e3	0.255		5.36				
13	13	PFTrDA	662.4 > 618.7		6.72e3	0.255		5.57				
14	14	PFTeDA	712.2>668.4		6.72e3	0.255		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.94e3	6.72e3	0.255	0.753	3.40	3.28	7.35	38.3	97.7
16	16	13C2-PFDA	514.8 > 470.0	6.02e3	6.72e3	0.255	1.023	4.82	4.88	8.94	34.3	87.5
17	17	d5-N-EtFOSAA	588.7> 419.1	1.06e4	9.24e3	0.255	1.264	4.99	5.11	45.9	142	90.8
18	18	13C2-PFOA	414.8 > 370.1	6.72e3	6.72e3	0.255	1.000	4.24	4.23	10.0	39.2	100.0
19	19	13C4-PFOS	502.8>80.7	1.04e4	1.04e4	0.255	1.000	4.64	4.64	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	9.24e3	9.24e3	0.255	1.000	4.99	4.99	40.0	157	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

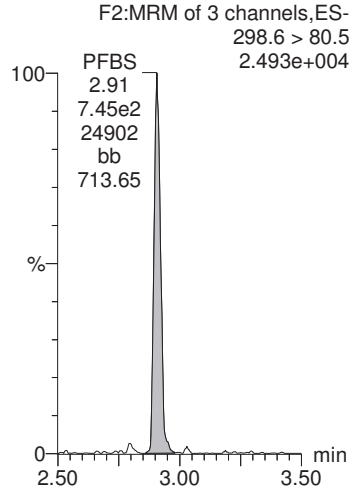
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-10.qld

Last Altered: Wednesday, July 25, 2018 14:36:13 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:43:35 Pacific Daylight Time

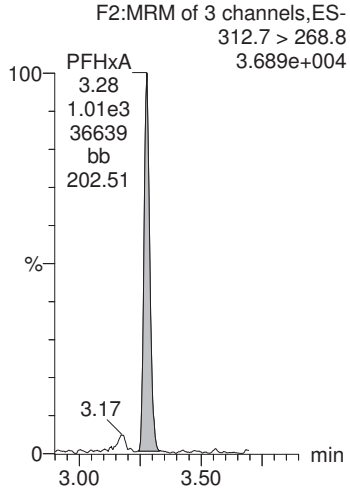
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_10, Date: 25-Jul-2018, Time: 10:10:21, ID: 1801824-11 CBD-1RW28-0718 0.25482, Description: CBD-1RW28-0718

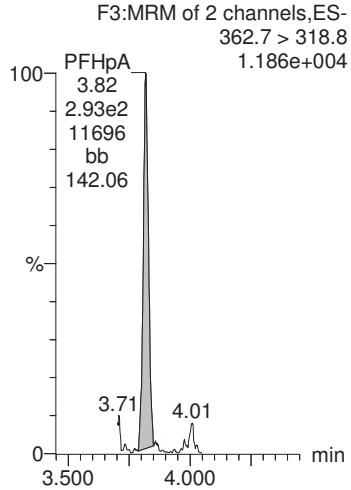
PFBS



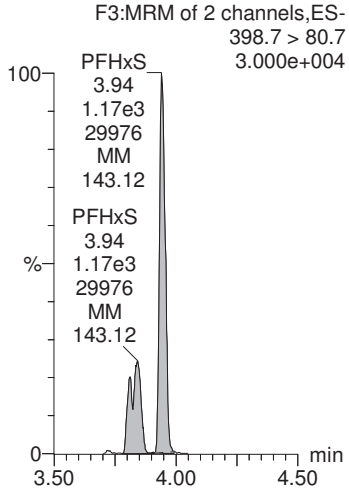
PFHxA



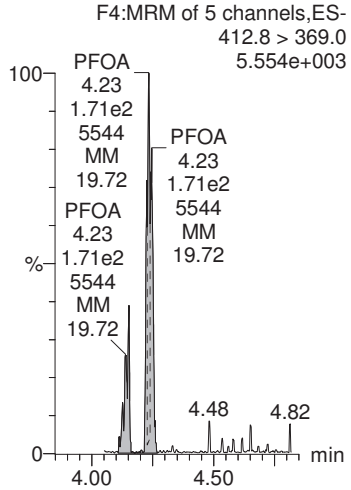
PFHpA



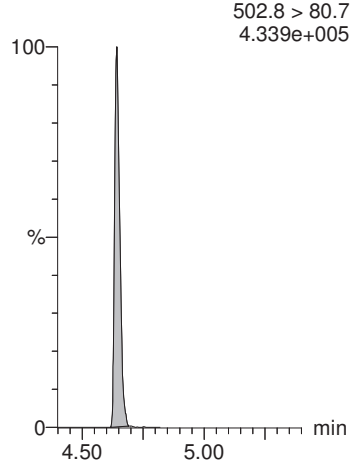
PFHxS



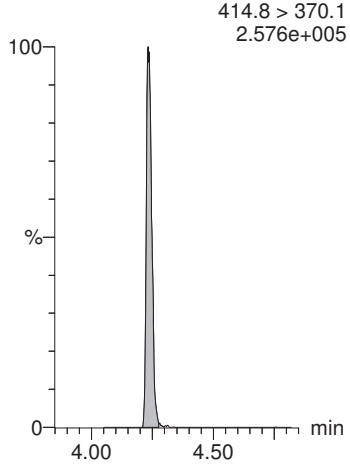
PFOA



13C4-PFOS



13C2-PFOA



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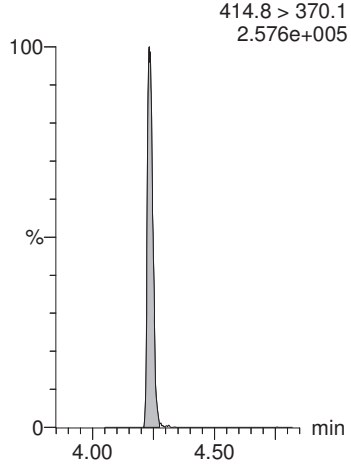

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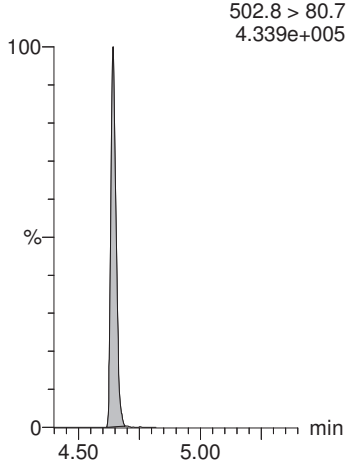

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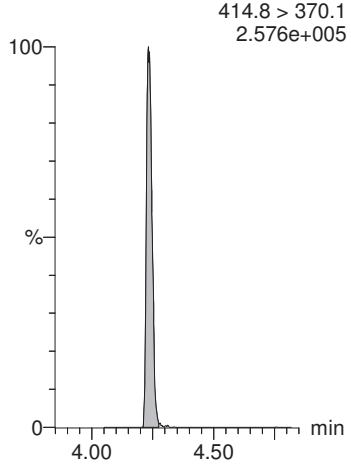


CGH 7/25/2018

Vista Analytical Laboratory

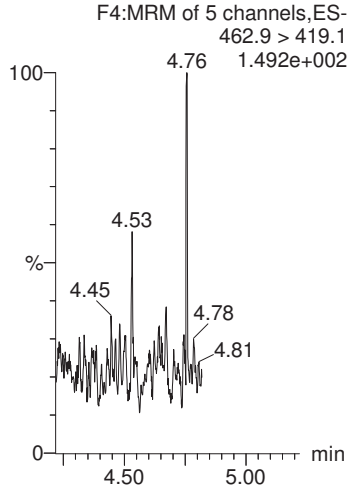
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-10.qld

Last Altered: Wednesday, July 25, 2018 14:36:13 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:43:35 Pacific Daylight Time

Name: 180725G1_10, Date: 25-Jul-2018, Time: 10:10:21, ID: 1801824-11 CBD-1RW28-0718 0.25482, Description: CBD-1RW28-0718

PFNA



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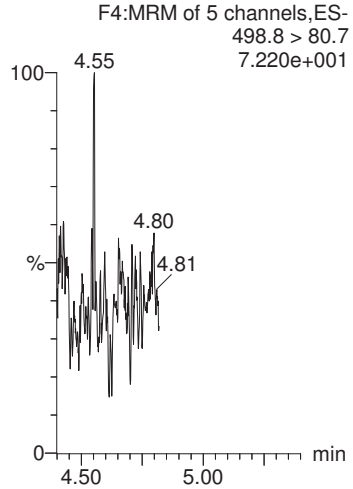

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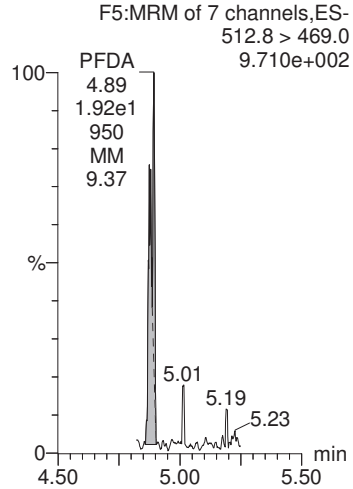
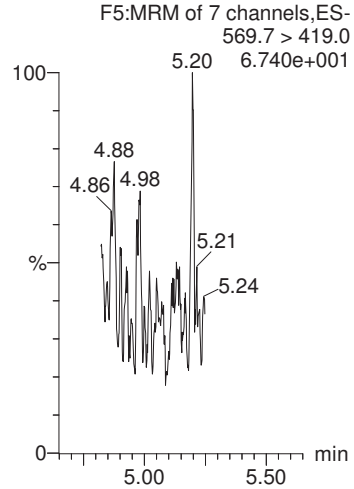
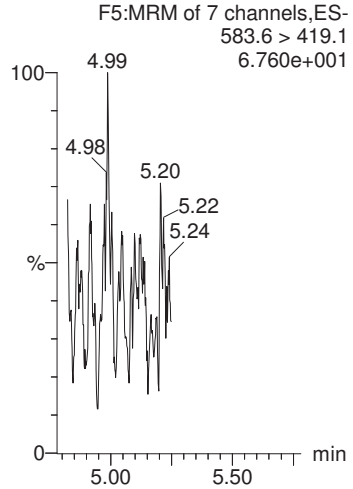


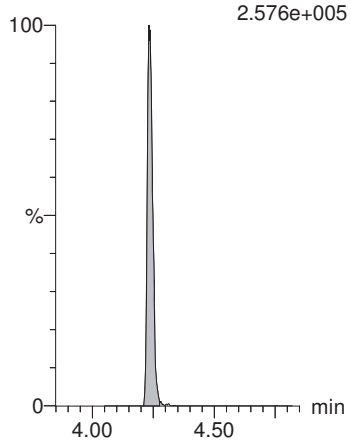
N-MeFOSAA



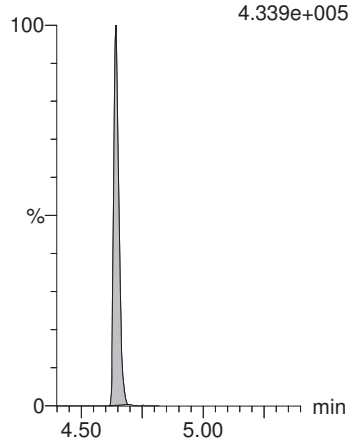
N-EtFOSAA



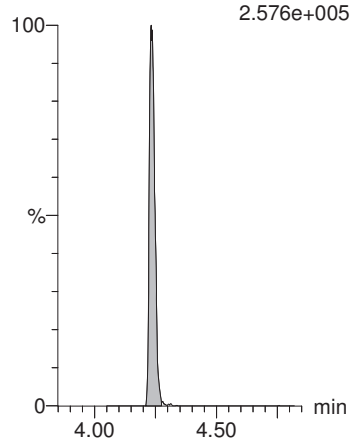
13C2-PFOA



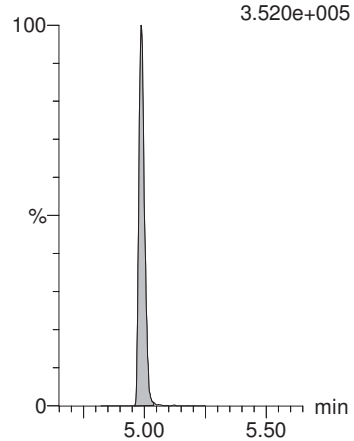
13C4-PFOS



13C2-PFOA



d3-N-MeFOSAA



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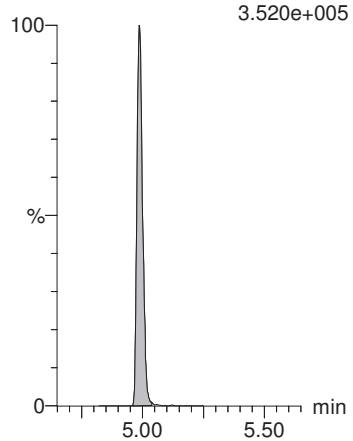


CGH 7/25/2018

Vista Analytical Laboratory

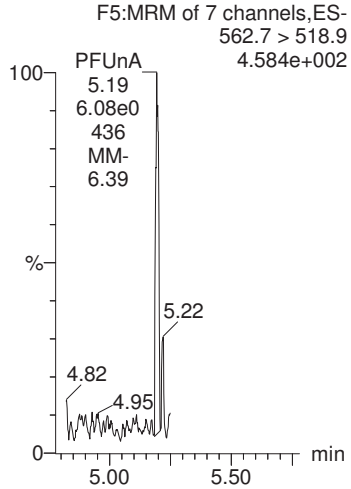
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-10.qld

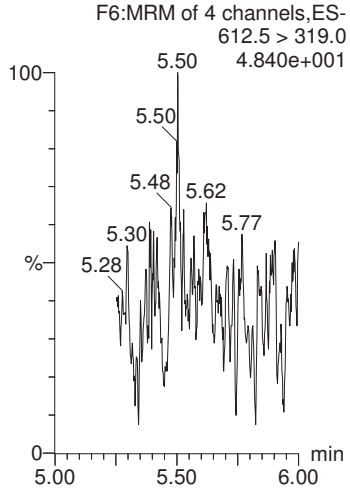
Last Altered: Wednesday, July 25, 2018 14:36:13 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:43:35 Pacific Daylight Time

Name: 180725G1_10, Date: 25-Jul-2018, Time: 10:10:21, ID: 1801824-11 CBD-1RW28-0718 0.25482, Description: CBD-1RW28-0718

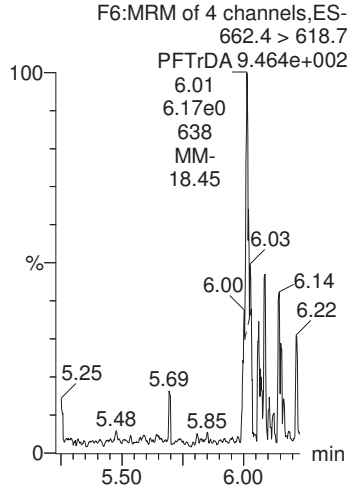
PFUnA



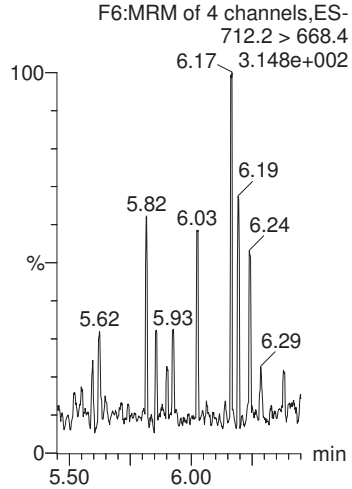
PFDoA



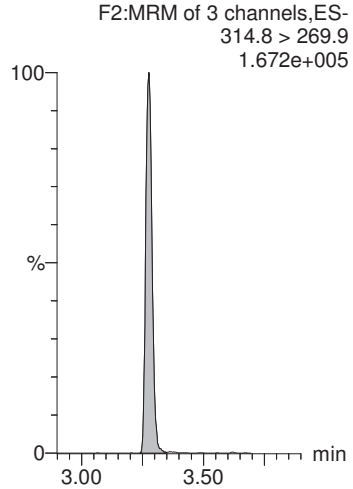
PFTrDA



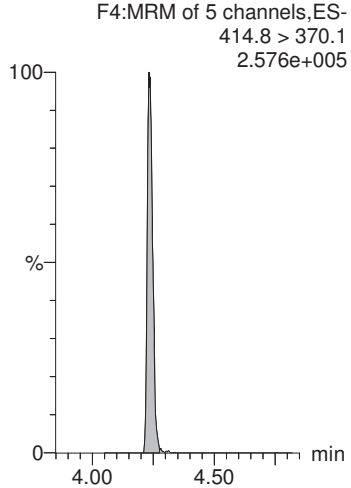
PFTeDA



13C2-PFHxA



13C2-PFOA



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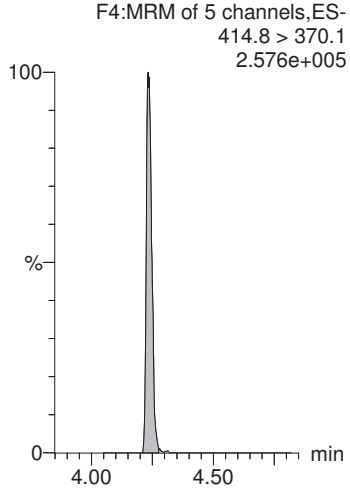

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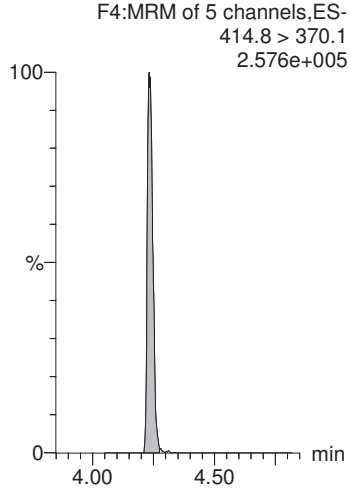

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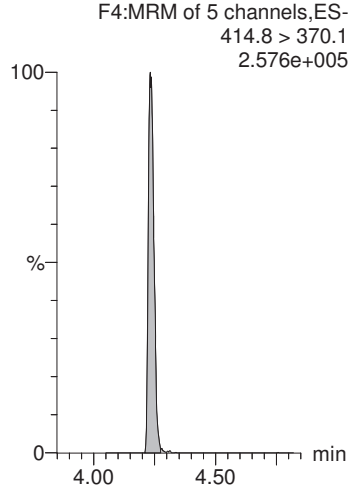

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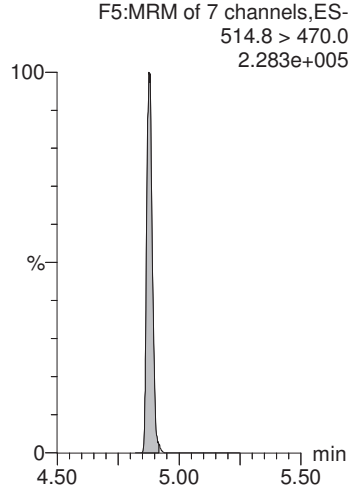


CGH 7/25/2018

Vista Analytical Laboratory

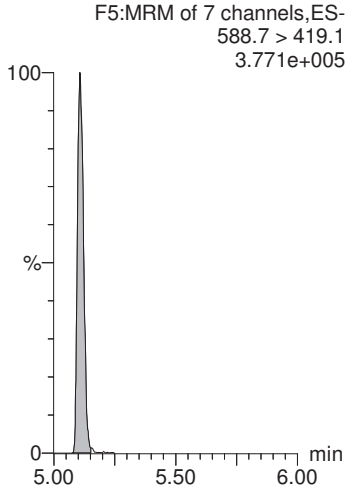
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-10.qld

Last Altered: Wednesday, July 25, 2018 14:36:13 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:43:35 Pacific Daylight Time

Name: 180725G1_10, Date: 25-Jul-2018, Time: 10:10:21, ID: 1801824-11 CBD-1RW28-0718 0.25482, Description: CBD-1RW28-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-11.qld

Last Altered: Wednesday, July 25, 2018 14:37:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:38:10 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_11, Date: 25-Jul-2018, Time: 10:23:10, ID: 1801824-12 CBD-1FB28-0718 0.25788, Description: CBD-1FB28-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.02e4	0.258		2.90				
2	2	PFHxA	312.7 > 268.8	2.78e1	6.78e3	0.258		3.27	3.27	0.0410	0.196	
3	3	PFHpA	362.7 > 318.8	1.48e1	6.78e3	0.258		3.81	3.80	0.0218	0.0962	
4	4	PFHxS	398.7 > 80.7		1.02e4	0.258		3.94				
5	5	PFOA	412.8 > 369.0	9.12e0	6.78e3	0.258		4.22	4.25	0.0135	0.0715	
6	6	PFNA	462.9 > 419.1		6.78e3	0.258		4.57				
7	7	PFOS	498.8 >80.7		1.02e4	0.258		4.63				
8	8	PFDA	512.8 > 469.0	1.37e1	6.78e3	0.258		4.86	4.88	0.0201	0.0896	
9	9	N-MeFOSAA	569.7 > 419.0		1.12e4	0.258		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.12e4	0.258		5.12				
11	11	PFUnA	562.7 > 518.9		6.78e3	0.258		5.11				
12	12	PFDoA	612.5 > 319.0		6.78e3	0.258		5.36				
13	13	PFTrDA	662.4 > 618.7		6.78e3	0.258		5.57				
14	14	PFTeDA	712.2>668.4		6.78e3	0.258		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.81e3	6.78e3	0.258	0.753	3.39	3.27	7.10	36.6	94.4
16	16	13C2-PFDA	514.8 > 470.0	6.22e3	6.78e3	0.258	1.023	4.82	4.88	9.17	34.8	89.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.19e4	1.12e4	0.258	1.264	4.99	5.11	42.4	130	83.8
18	18	13C2-PFOA	414.8 > 370.1	6.78e3	6.78e3	0.258	1.000	4.24	4.23	10.0	38.8	100.0
19	19	13C4-PFOS	502.8>80.7	1.02e4	1.02e4	0.258	1.000	4.64	4.64	28.7	111	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.12e4	1.12e4	0.258	1.000	4.99	4.99	40.0	155	100.0

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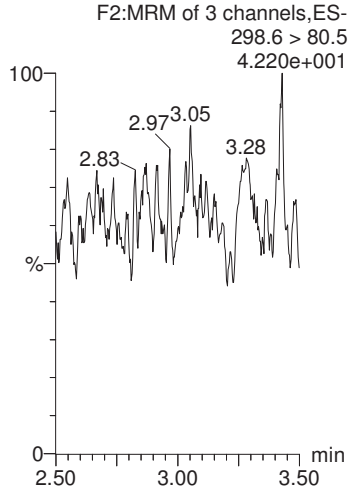
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-11.qld

Last Altered: Wednesday, July 25, 2018 14:37:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:38:10 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_11, Date: 25-Jul-2018, Time: 10:23:10, ID: 1801824-12 CBD-1FB28-0718 0.25788, Description: CBD-1FB28-0718

PFBS



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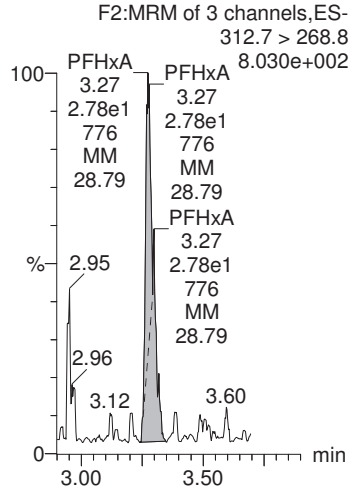

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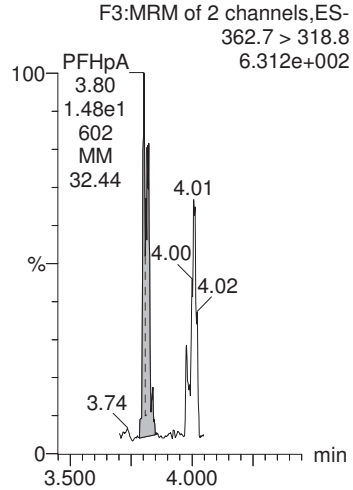

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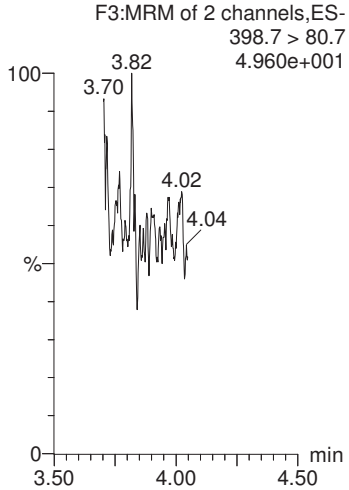
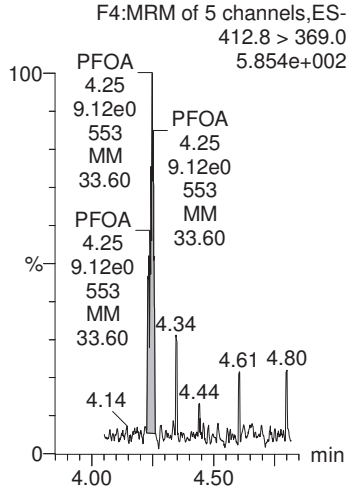


PFOA



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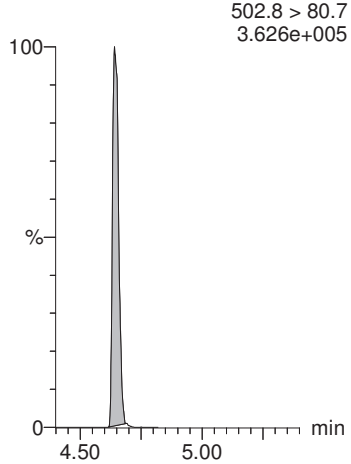

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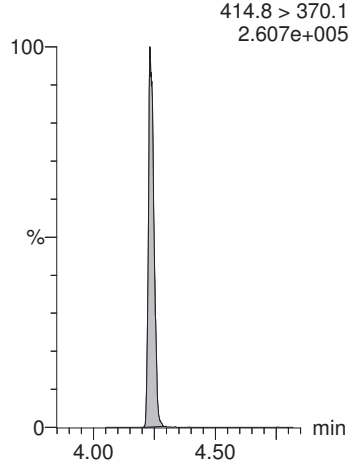

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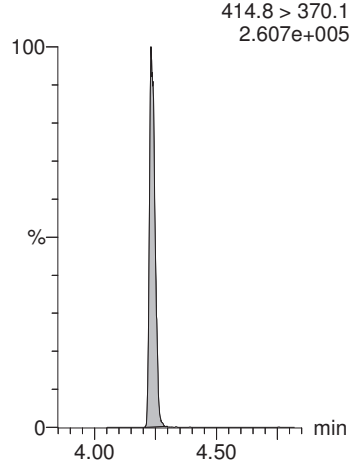

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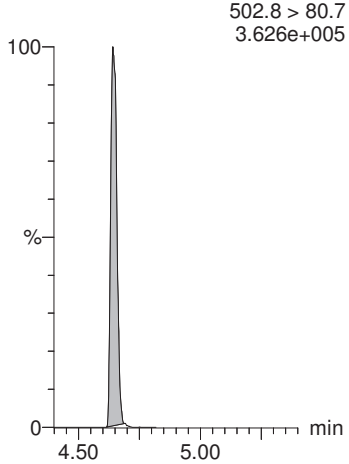

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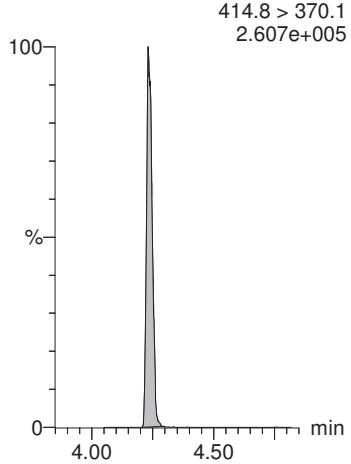

CGH 7/25/2018

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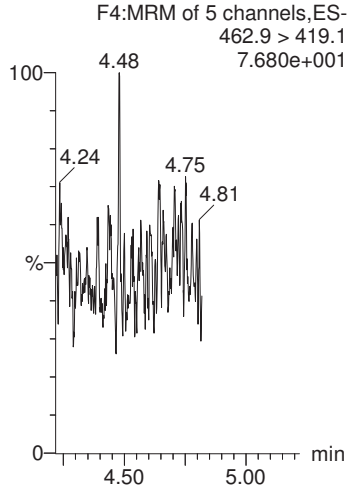
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-11.qld

Last Altered: Wednesday, July 25, 2018 14:37:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:38:10 Pacific Daylight Time

Name: 180725G1_11, Date: 25-Jul-2018, Time: 10:23:10, ID: 1801824-12 CBD-1FB28-0718 0.25788, Description: CBD-1FB28-0718

PFNA



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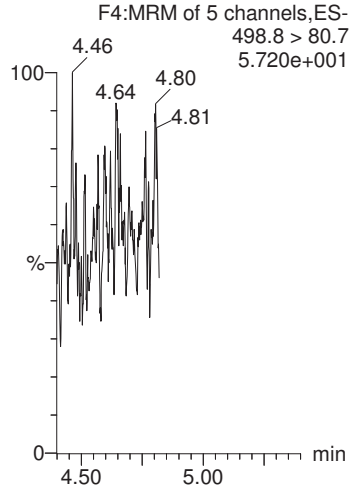

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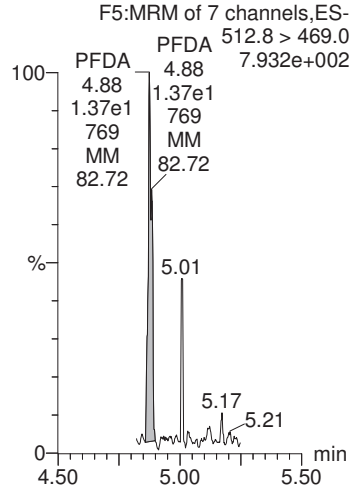
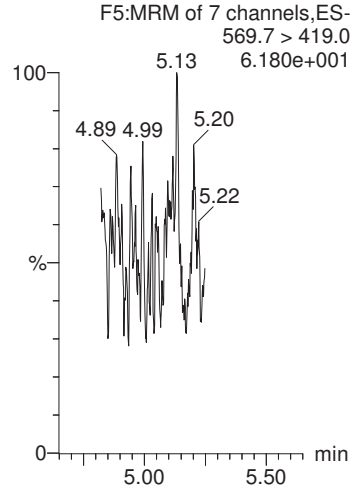


N-MeFOSAA



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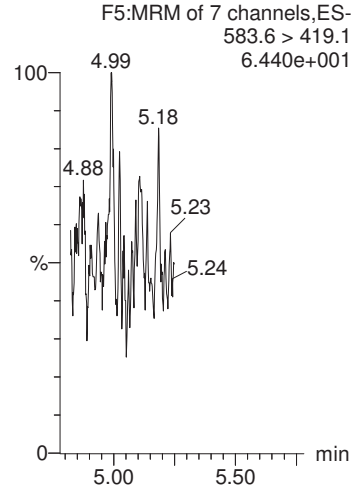

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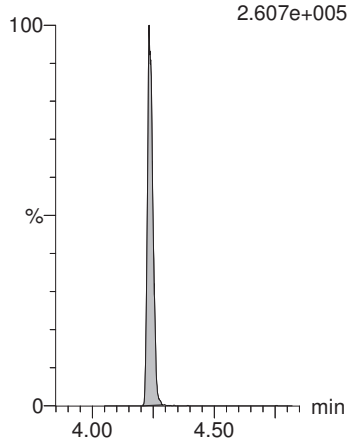

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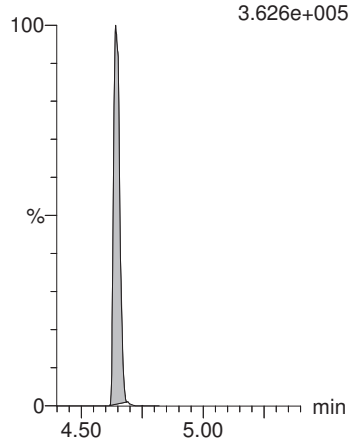

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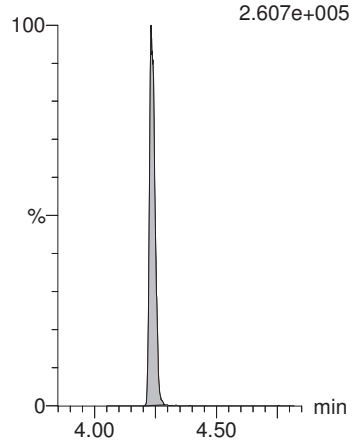

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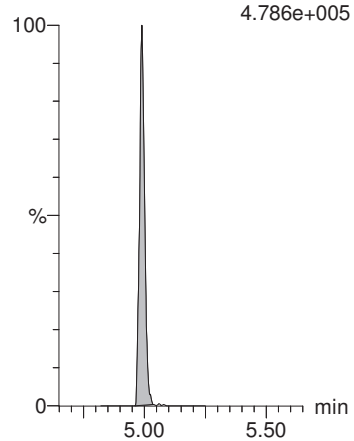

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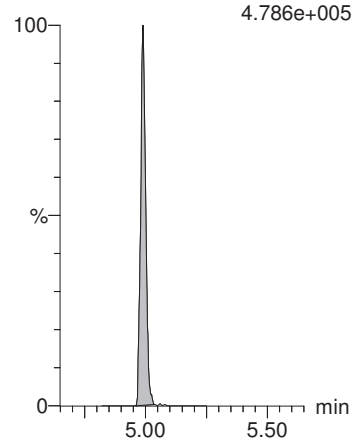

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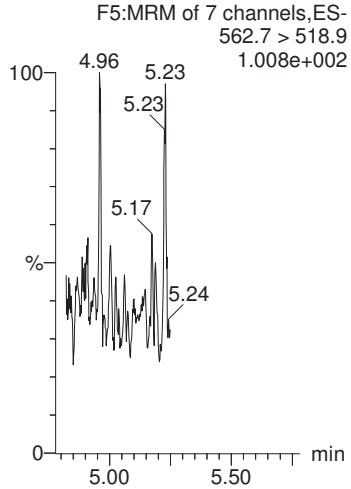
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-11.qld

Last Altered: Wednesday, July 25, 2018 14:37:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:38:10 Pacific Daylight Time

Name: 180725G1_11, Date: 25-Jul-2018, Time: 10:23:10, ID: 1801824-12 CBD-1FB28-0718 0.25788, Description: CBD-1FB28-0718

PFUnA



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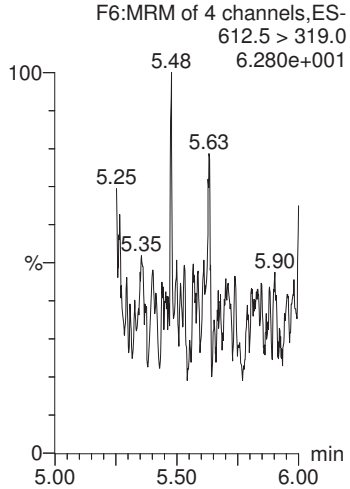

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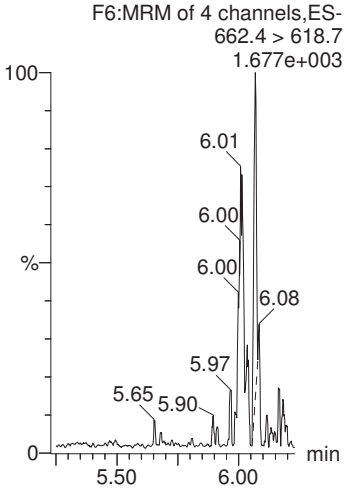

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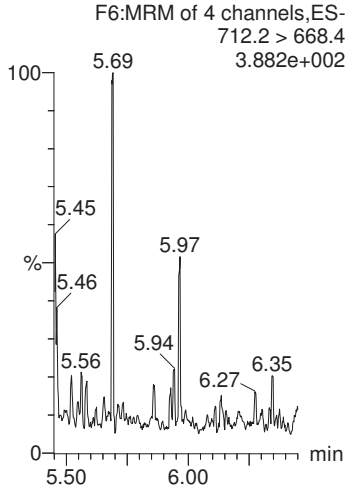

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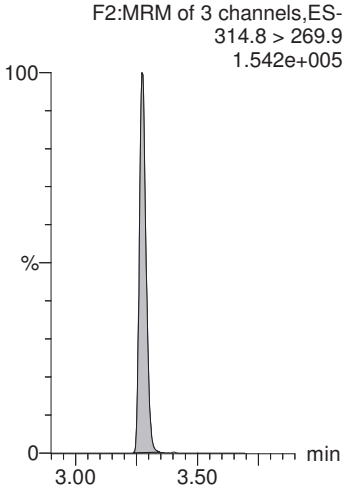

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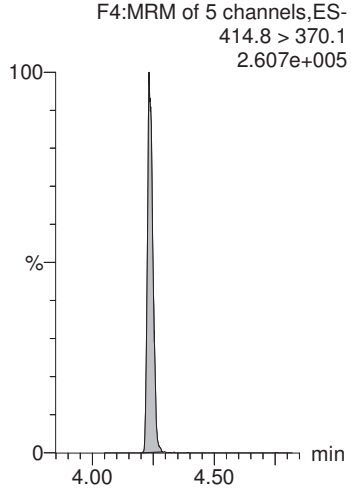

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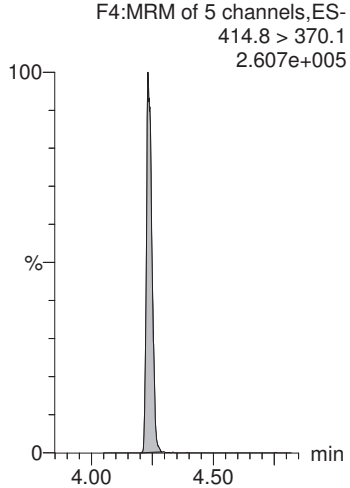

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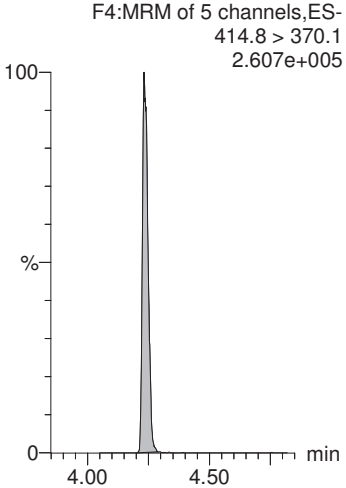

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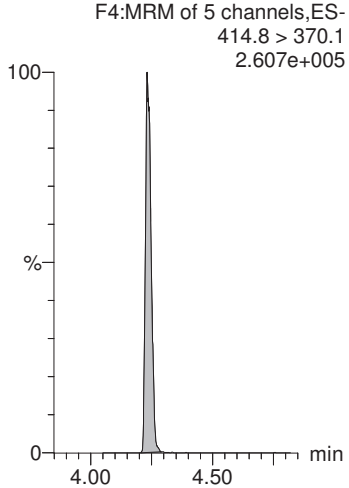

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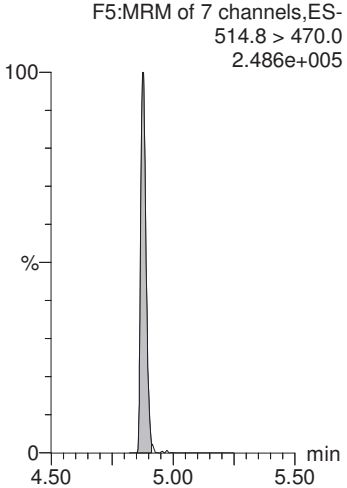

CGH 7/25/2018

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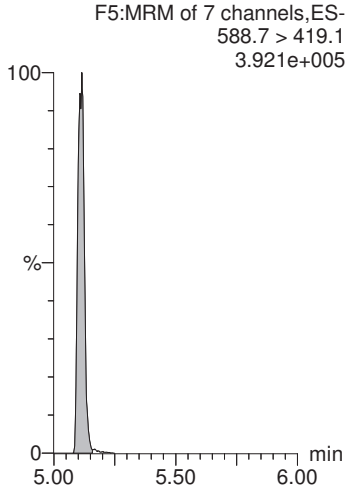
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-11.qld

Last Altered: Wednesday, July 25, 2018 14:37:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:38:10 Pacific Daylight Time

Name: 180725G1_11, Date: 25-Jul-2018, Time: 10:23:10, ID: 1801824-12 CBD-1FB28-0718 0.25788, Description: CBD-1FB28-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-12.qld

Last Altered: Wednesday, July 25, 2018 14:40:54 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:41:28 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_12, Date: 25-Jul-2018, Time: 10:36:00, ID: 1801824-13 CBD-1RW29-0718 0.25606, Description: CBD-1RW29-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.04e4	0.256		2.90				
2	2	PFHxA	312.7 > 268.8		6.81e3	0.256		3.27				
3	3	PFHpA	362.7 > 318.8	2.33e1	6.81e3	0.256		3.81	3.81	0.0342	0.152	
4	4	PFHxS	398.7 > 80.7		1.04e4	0.256		3.94				
5	5	PFOA	412.8 > 369.0	2.28e1	6.81e3	0.256		4.22	4.25	0.0335	0.179	
6	6	PFNA	462.9 > 419.1		6.81e3	0.256		4.57				
7	7	PFOS	498.8 >80.7		1.04e4	0.256		4.63				
8	8	PFDA	512.8 > 469.0	2.49e0	6.81e3	0.256		4.86	4.87	0.00366	0.0164	
9	9	N-MeFOSAA	569.7 > 419.0		9.60e3	0.256		4.99				
10	10	N-EtFOSAA	583.6 >419.1		9.60e3	0.256		5.12				
11	11	PFUnA	562.7 > 518.9		6.81e3	0.256		5.11				
12	12	PFDoA	612.5 > 319.0		6.81e3	0.256		5.36				
13	13	PFTrDA	662.4 > 618.7		6.81e3	0.256		5.57				
14	14	PFTeDA	712.2>668.4		6.81e3	0.256		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.98e3	6.81e3	0.256	0.753	3.40	3.28	7.32	38.0	97.3
16	16	13C2-PFDA	514.8 > 470.0	6.29e3	6.81e3	0.256	1.023	4.83	4.87	9.24	35.3	90.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.16e4	9.60e3	0.256	1.264	4.99	5.11	48.5	150	95.8
18	18	13C2-PFOA	414.8 > 370.1	6.81e3	6.81e3	0.256	1.000	4.24	4.23	10.0	39.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.04e4	1.04e4	0.256	1.000	4.64	4.64	28.7	112	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	9.60e3	9.60e3	0.256	1.000	4.99	4.99	40.0	156	100.0

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Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-12.qld

Last Altered: Wednesday, July 25, 2018 14:40:54 Pacific Daylight Time
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_12, Date: 25-Jul-2018, Time: 10:36:00, ID: 1801824-13 CBD-1RW29-0718 0.25606, Description: CBD-1RW29-0718

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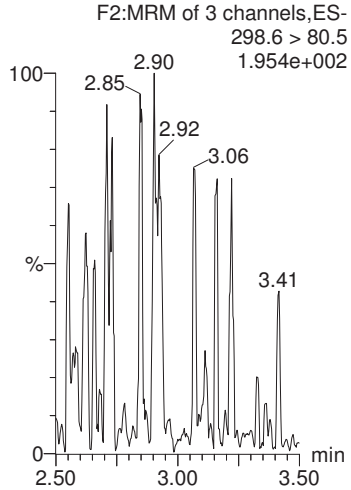
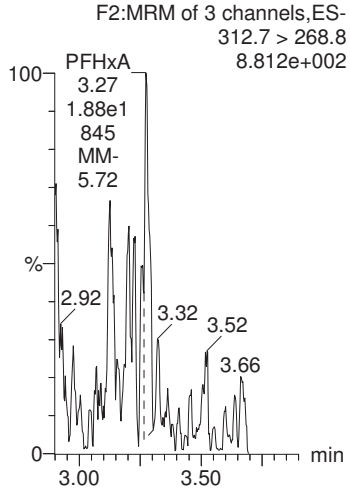


PFHxA



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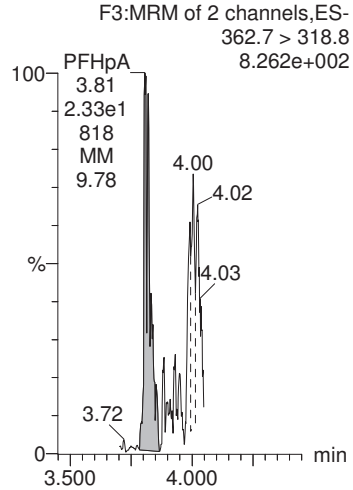

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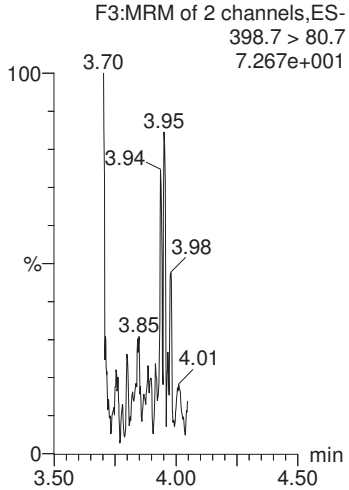
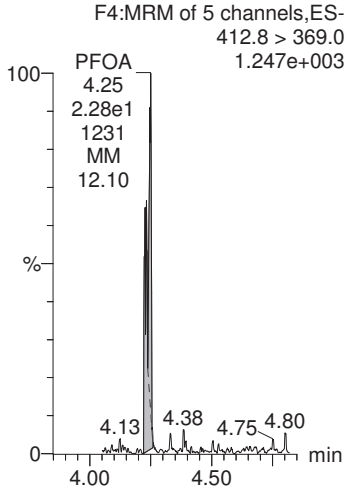


PFOA



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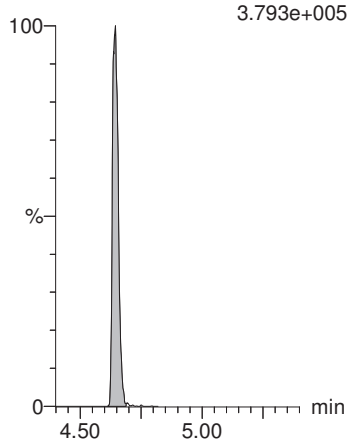

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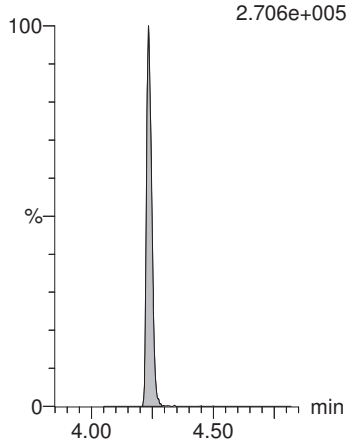

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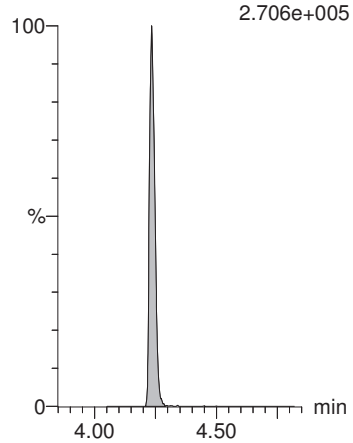

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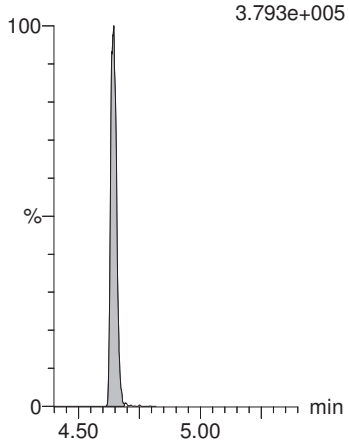

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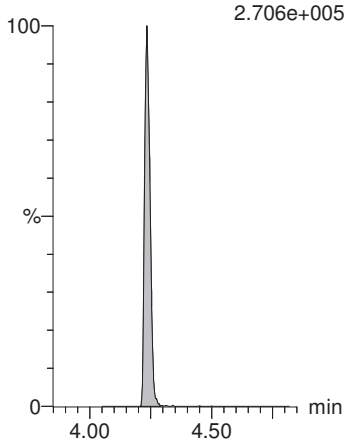

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Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-12.qld

Last Altered: Wednesday, July 25, 2018 14:40:54 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:41:28 Pacific Daylight Time

Name: 180725G1_12, Date: 25-Jul-2018, Time: 10:36:00, ID: 1801824-13 CBD-1RW29-0718 0.25606, Description: CBD-1RW29-0718

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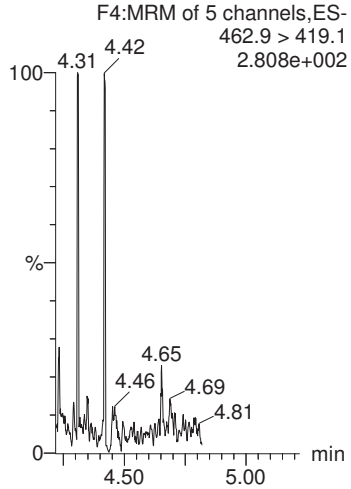

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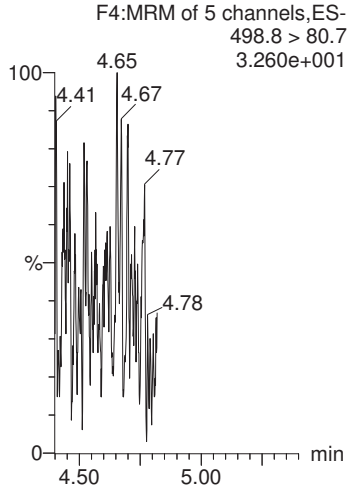

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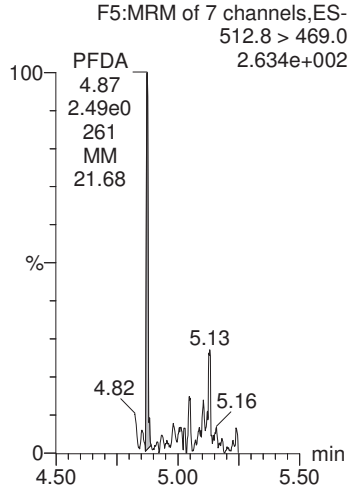

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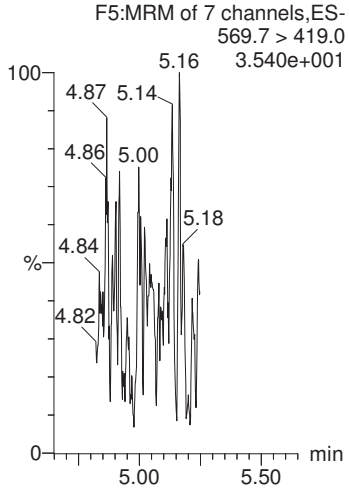

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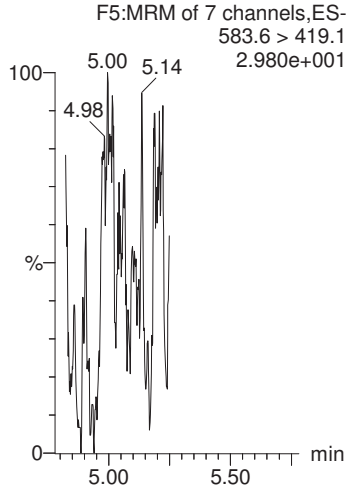

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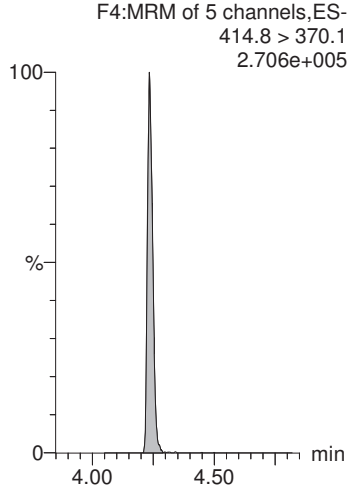

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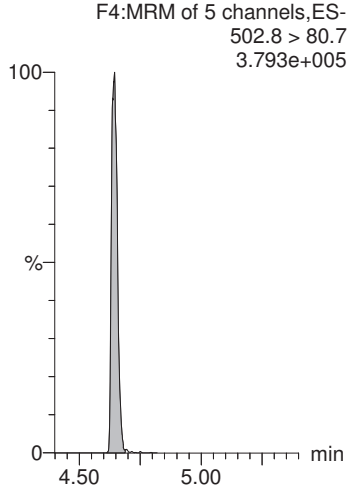

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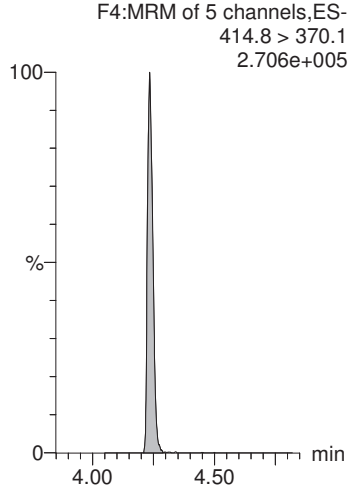

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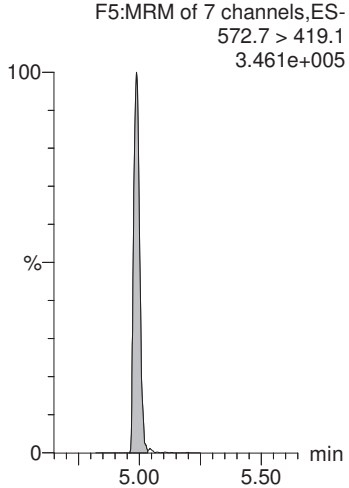

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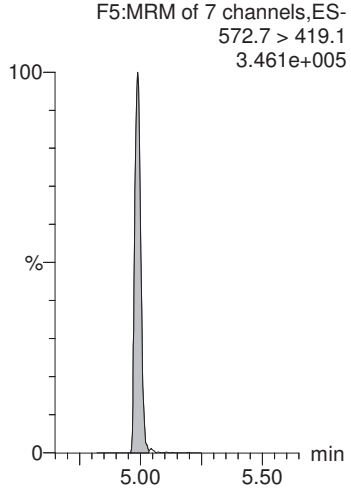

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-12.qld

Last Altered: Wednesday, July 25, 2018 14:40:54 Pacific Daylight Time
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Name: 180725G1_12, Date: 25-Jul-2018, Time: 10:36:00, ID: 1801824-13 CBD-1RW29-0718 0.25606, Description: CBD-1RW29-0718

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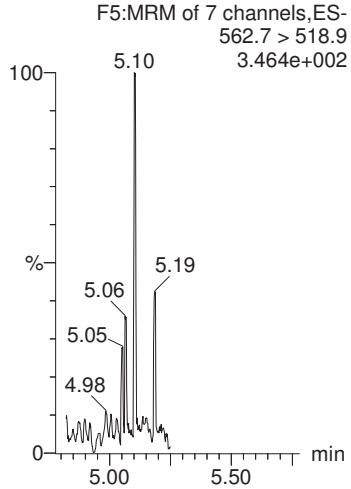

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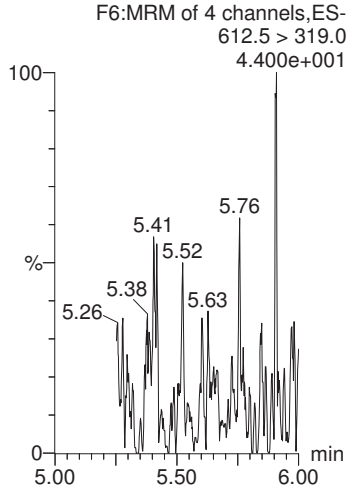

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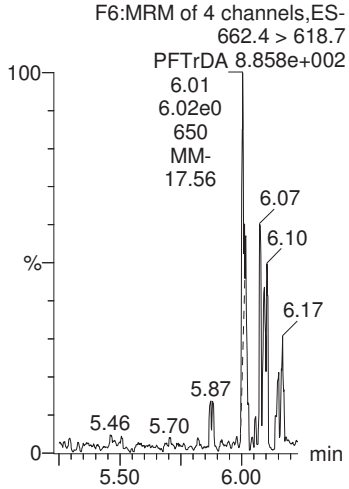

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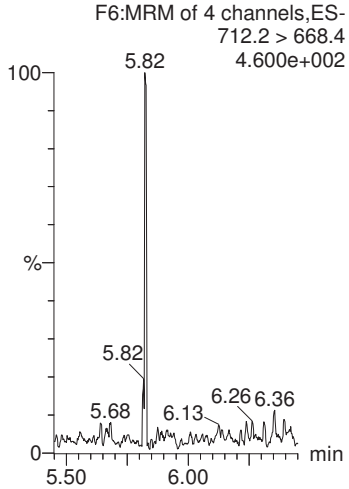

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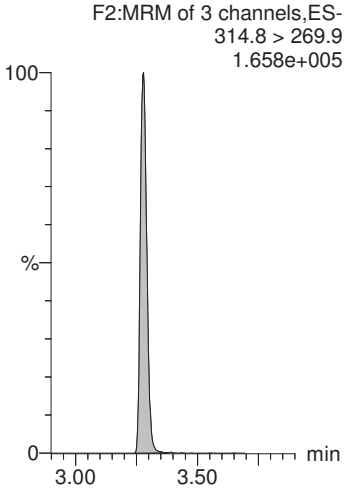

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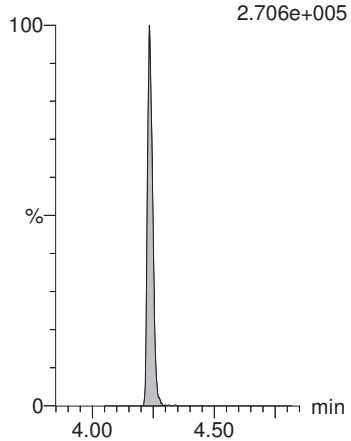

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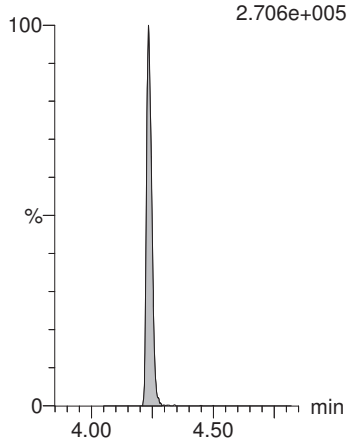

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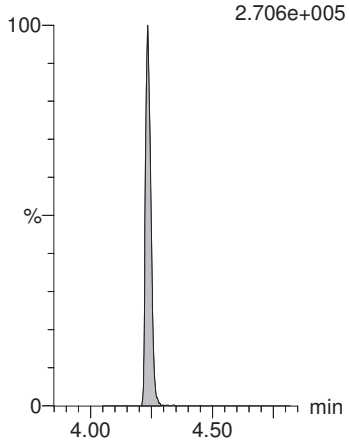

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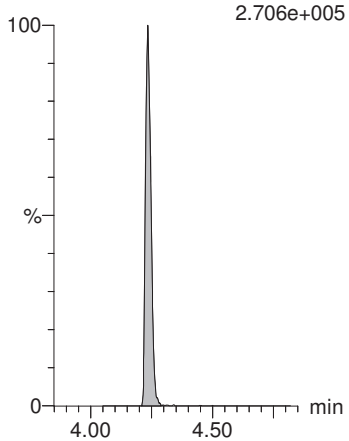

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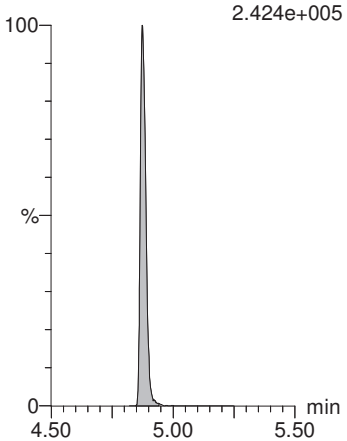

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MMM 7/25/2018

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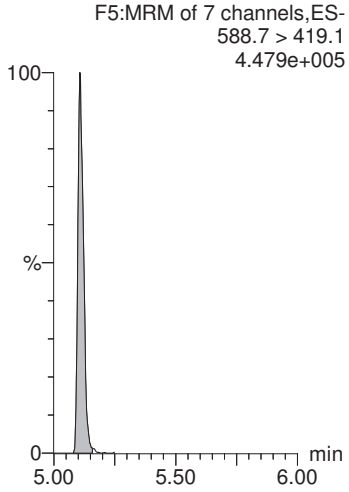
Name: 180725G1_12, Date: 25-Jul-2018, Time: 10:36:00, ID: 1801824-13 CBD-1RW29-0718 0.25606, Description: CBD-1RW29-0718

d5-N-EtFOSAA



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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-13.qld

Last Altered: Wednesday, July 25, 2018 14:46:24 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:46:56 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_13, Date: 25-Jul-2018, Time: 10:48:45, ID: 1801824-14 CBD-1FB29-0718 0.25267, Description: CBD-1FB29-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.05e4	0.253		2.90				
2	2	PFHxA	312.7 > 268.8	2.52e1	6.40e3	0.253		3.28	3.29	0.0394	0.192	
3	3	PFHpA	362.7 > 318.8	8.47e0	6.40e3	0.253		3.82	3.81	0.0132	0.0598	
4	4	PFHxS	398.7 > 80.7		1.05e4	0.253		3.94				
5	5	PFOA	412.8 > 369.0	3.45e0	6.40e3	0.253		4.23	4.26	0.00539	0.0292	
6	6	PFNA	462.9 > 419.1	2.50e0	6.40e3	0.253		4.58	4.58	0.00391	0.0177	
7	7	PFOS	498.8 >80.7	1.68e0	1.05e4	0.253		4.63	4.64	0.00460	0.0493	
8	8	PFDA	512.8 > 469.0	4.00e1	6.40e3	0.253		4.87	4.87	0.0625	0.284	
9	9	N-MeFOSAA	569.7 > 419.0		9.52e3	0.253		4.99				
10	10	N-EtFOSAA	583.6 >419.1	7.77e0	9.52e3	0.253		5.12	5.10	0.0326	0.130	
11	11	PFUnA	562.7 > 518.9		6.40e3	0.253		5.12				
12	12	PFDoA	612.5 > 319.0		6.40e3	0.253		5.37				
13	13	PFTrDA	662.4 > 618.7		6.40e3	0.253		5.58				
14	14	PFTeDA	712.2>668.4		6.40e3	0.253		5.75				
15	15	13C2-PFHxA	314.8 > 269.9	5.21e3	6.40e3	0.253	0.753	3.40	3.28	8.15	42.9	108.3
16	16	13C2-PFDA	514.8 > 470.0	6.69e3	6.40e3	0.253	1.023	4.83	4.88	10.5	40.5	102.3
17	17	d5-N-EtFOSAA	588.7> 419.1	1.30e4	9.52e3	0.253	1.264	4.99	5.11	54.5	171	107.7
18	18	13C2-PFOA	414.8 > 370.1	6.40e3	6.40e3	0.253	1.000	4.24	4.24	10.0	39.6	100.0
19	19	13C4-PFOS	502.8>80.7	1.05e4	1.05e4	0.253	1.000	4.64	4.64	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	9.52e3	9.52e3	0.253	1.000	4.99	4.99	40.0	158	100.0

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MMM 7/25/2018

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_13, Date: 25-Jul-2018, Time: 10:48:45, ID: 1801824-14 CBD-1FB29-0718 0.25267, Description: CBD-1FB29-0718

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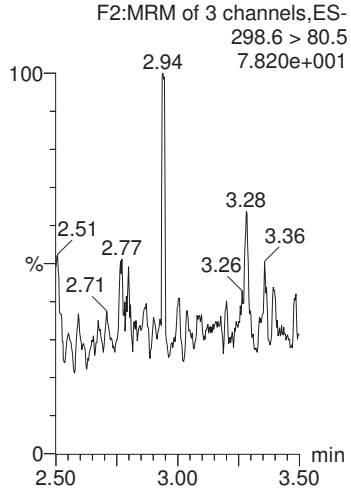

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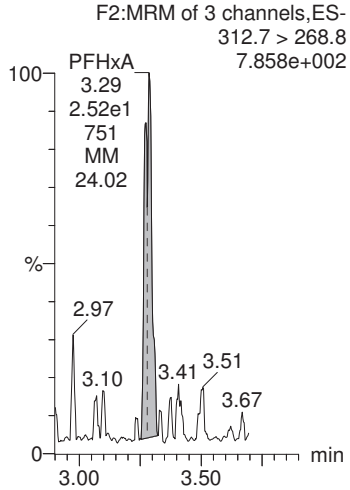

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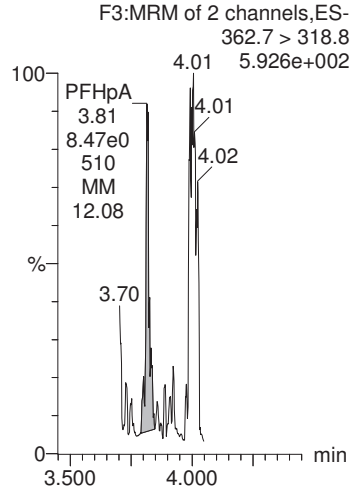

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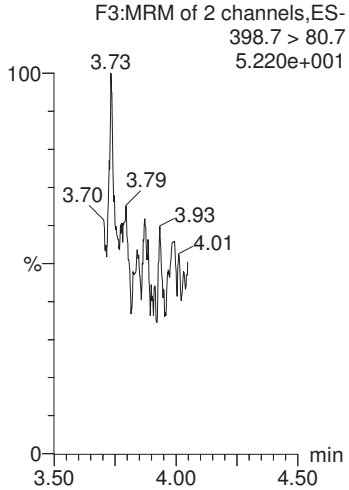

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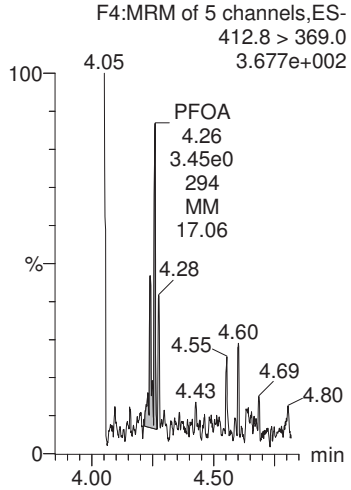

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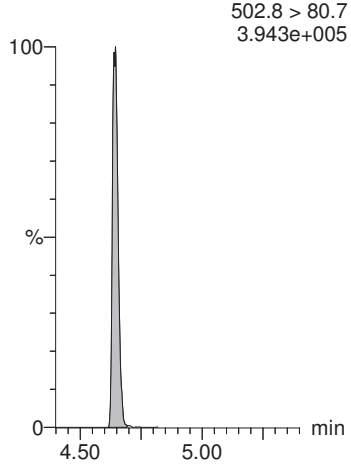

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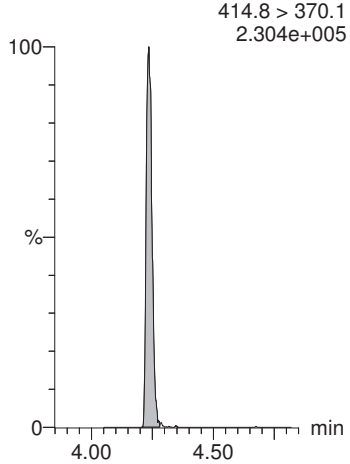

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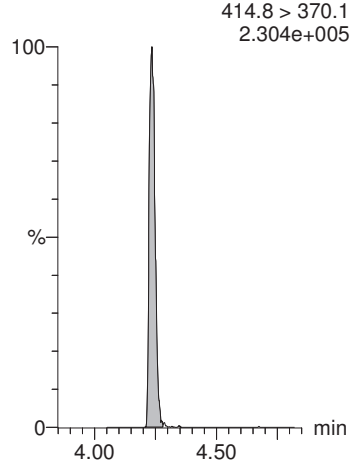

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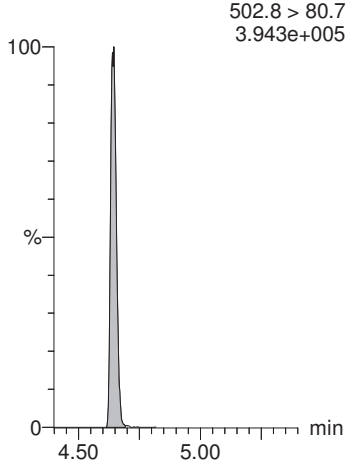

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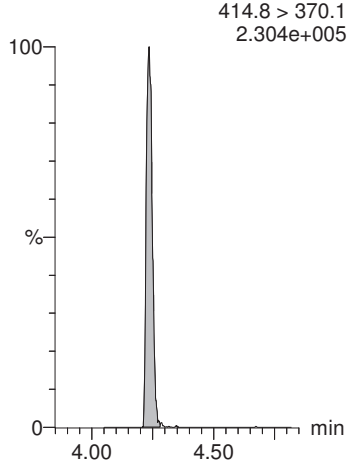

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Vista Analytical Laboratory

MMM 7/25/2018

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Name: 180725G1_13, Date: 25-Jul-2018, Time: 10:48:45, ID: 1801824-14 CBD-1FB29-0718 0.25267, Description: CBD-1FB29-0718

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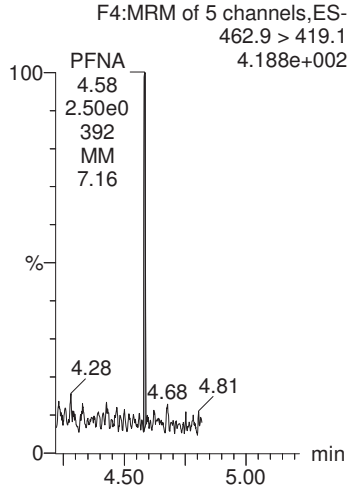

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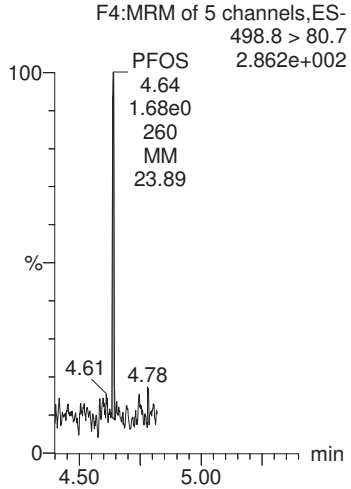

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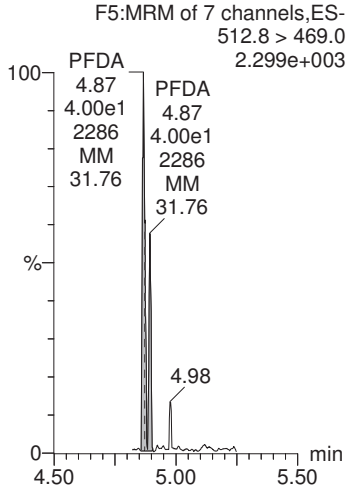

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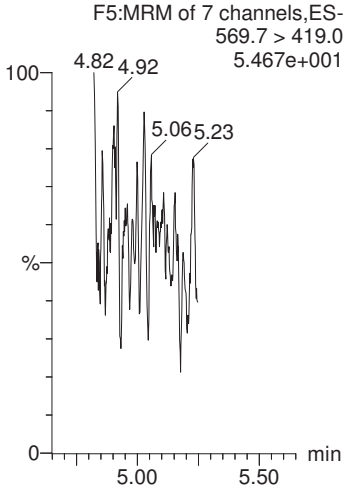

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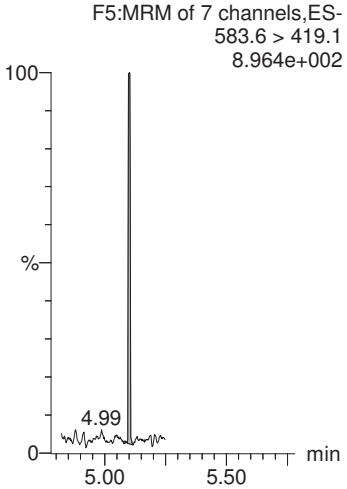

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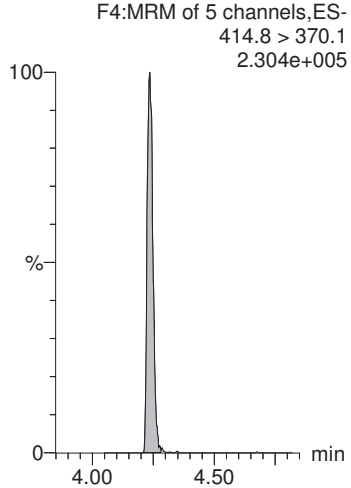

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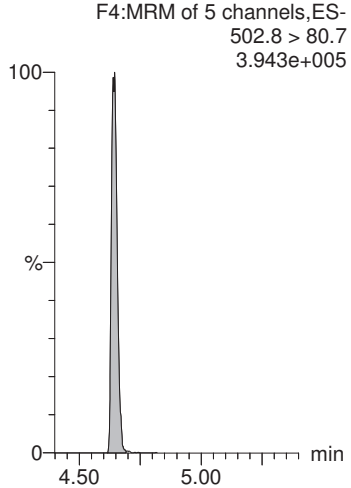

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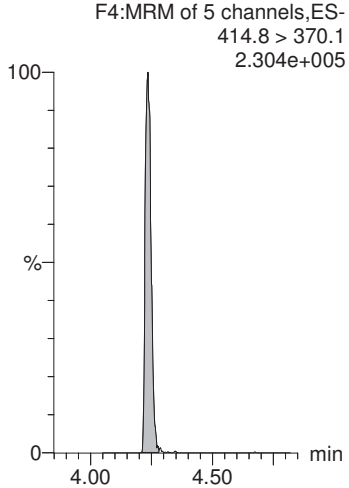

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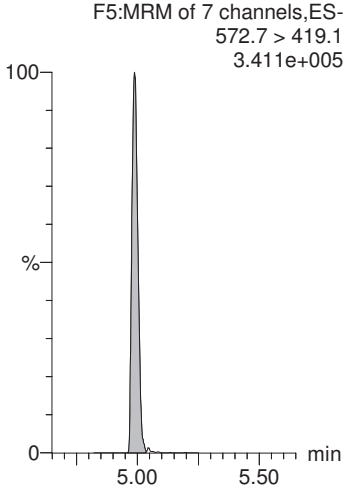

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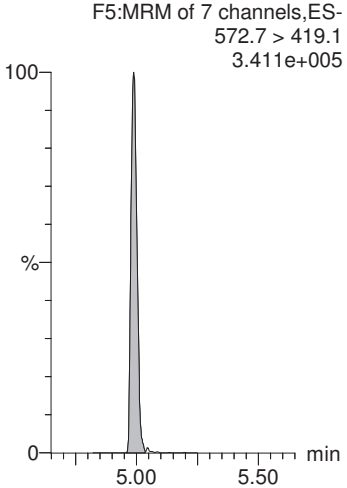

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MMM 7/25/2018

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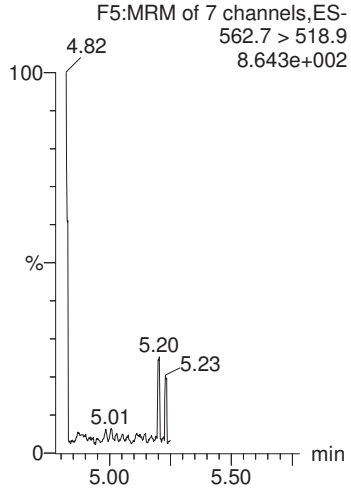
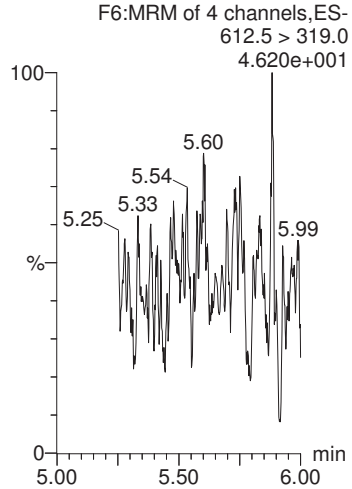
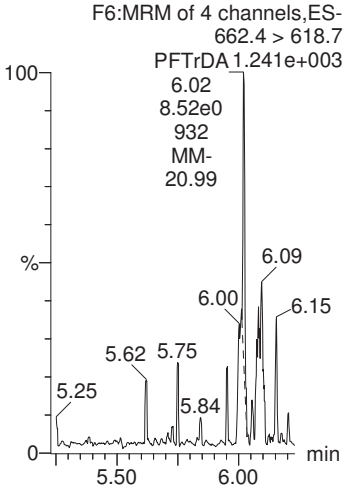
PFUnA



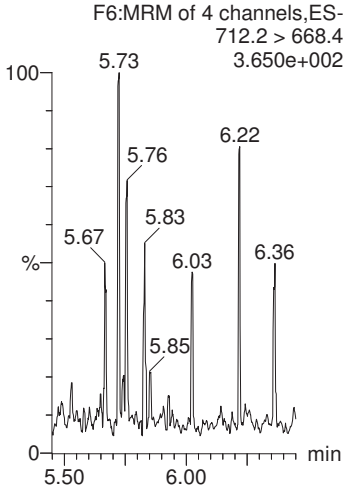
PFDoA



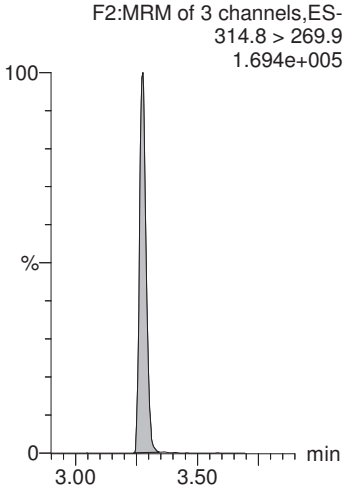
PFTrDA



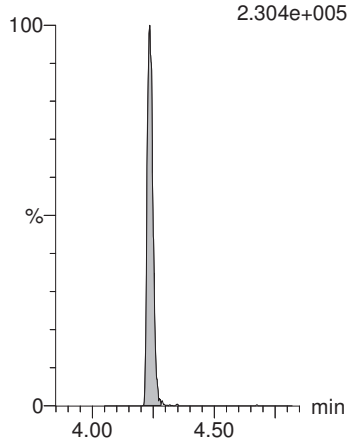
PFTeDA



13C2-PFHxA



13C2-PFOA



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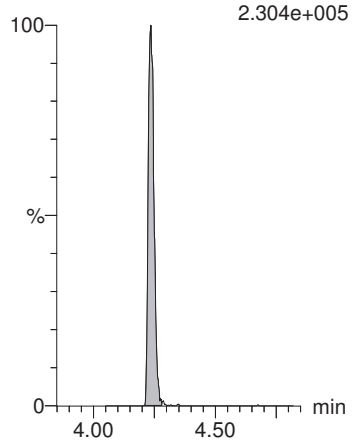

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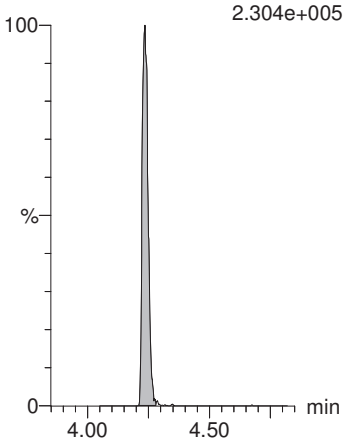

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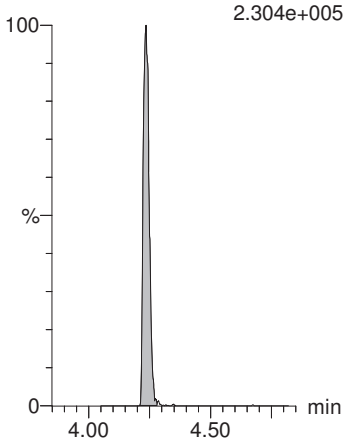
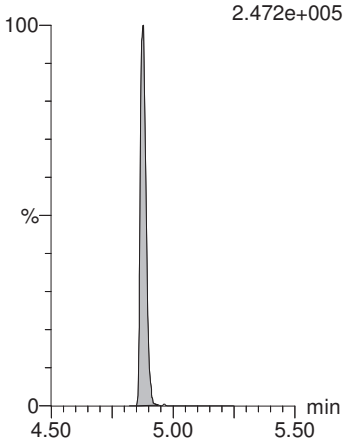


13C2-PFDA



CGH 7/25/2018

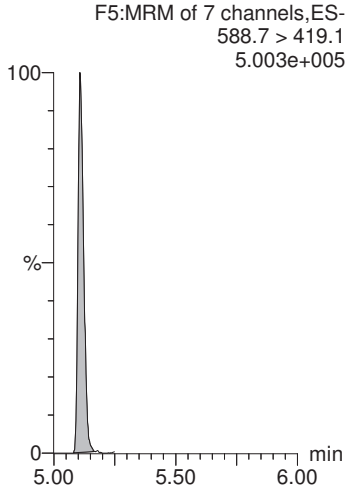
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-13.qld

Last Altered: Wednesday, July 25, 2018 14:46:24 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:46:56 Pacific Daylight Time

Name: 180725G1_13, Date: 25-Jul-2018, Time: 10:48:45, ID: 1801824-14 CBD-1FB29-0718 0.25267, Description: CBD-1FB29-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-14.qld

Last Altered: Wednesday, July 25, 2018 14:48:44 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:49:22 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_14, Date: 25-Jul-2018, Time: 11:01:35, ID: 1801824-15 CBD-1RW30-0718 0.25164, Description: CBD-1RW30-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.01e4	0.252		2.90				
2	2	PFHxA	312.7 > 268.8		6.64e3	0.252		3.27				
3	3	PFHpA	362.7 > 318.8		6.64e3	0.252		3.81				
4	4	PFHxS	398.7 > 80.7		1.01e4	0.252		3.94				
5	5	PFOA	412.8 > 369.0	1.59e1	6.64e3	0.252		4.22	4.24	0.0239	0.130	
6	6	PFNA	462.9 > 419.1		6.64e3	0.252		4.57				
7	7	PFOS	498.8 >80.7		1.01e4	0.252		4.63				
8	8	PFDA	512.8 > 469.0	2.33e1	6.64e3	0.252		4.86	4.90	0.0351	0.160	
9	9	N-MeFOSAA	569.7 > 419.0		1.08e4	0.252		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.08e4	0.252		5.12				
11	11	PFUnA	562.7 > 518.9		6.64e3	0.252		5.11				
12	12	PFDoA	612.5 > 319.0		6.64e3	0.252		5.36				
13	13	PFTrDA	662.4 > 618.7		6.64e3	0.252		5.57				
14	14	PFTeDA	712.2>668.4		6.64e3	0.252		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.91e3	6.64e3	0.252	0.753	3.39	3.28	7.40	39.1	98.3
16	16	13C2-PFDA	514.8 > 470.0	6.38e3	6.64e3	0.252	1.023	4.82	4.87	9.62	37.4	94.0
17	17	d5-N-EtFOSAA	588.7> 419.1	1.18e4	1.08e4	0.252	1.264	4.99	5.11	43.8	138	86.6
18	18	13C2-PFOA	414.8 > 370.1	6.64e3	6.64e3	0.252	1.000	4.24	4.23	10.0	39.7	100.0
19	19	13C4-PFOS	502.8>80.7	1.01e4	1.01e4	0.252	1.000	4.64	4.64	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.08e4	1.08e4	0.252	1.000	4.99	4.99	40.0	159	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

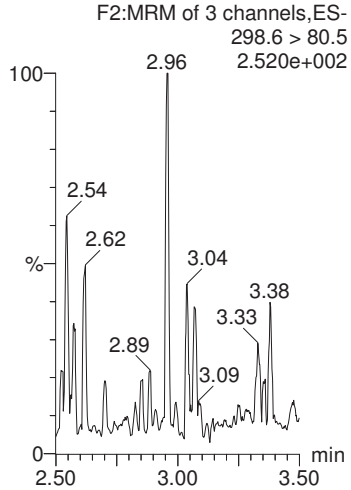
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-14.qld

Last Altered: Wednesday, July 25, 2018 14:48:44 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:49:22 Pacific Daylight Time

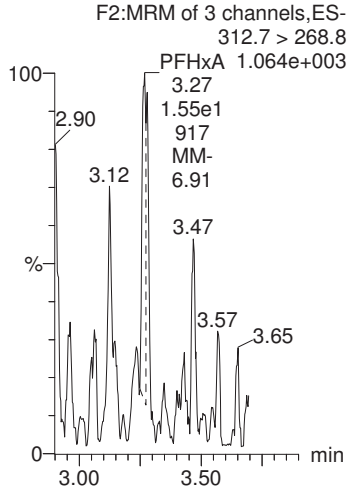
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_14, Date: 25-Jul-2018, Time: 11:01:35, ID: 1801824-15 CBD-1RW30-0718 0.25164, Description: CBD-1RW30-0718

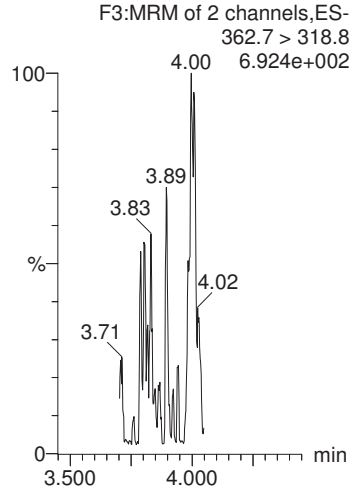
PFBS



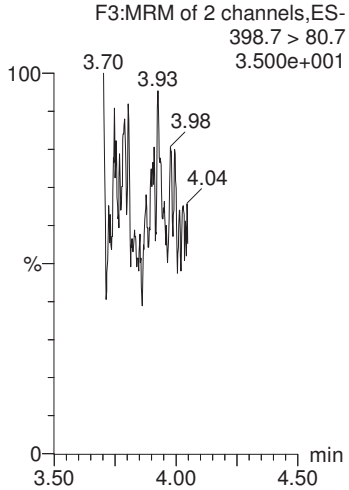
PFHxA



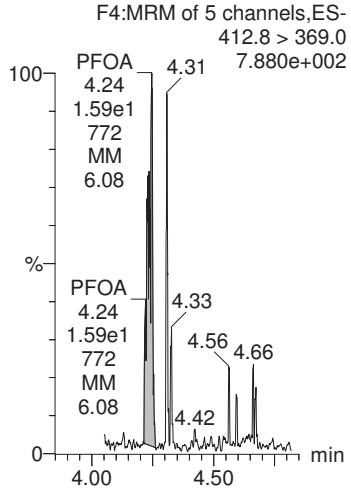
PFHpA



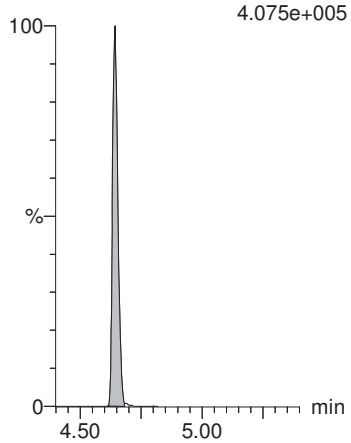
PFHxS



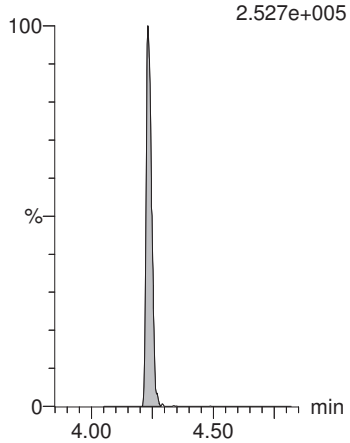
PFOA



13C4-PFOS



13C2-PFOA



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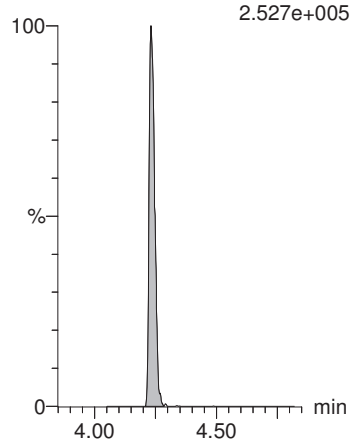

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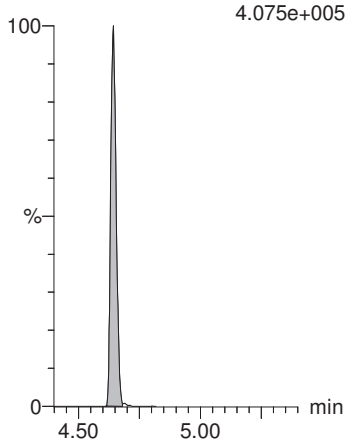

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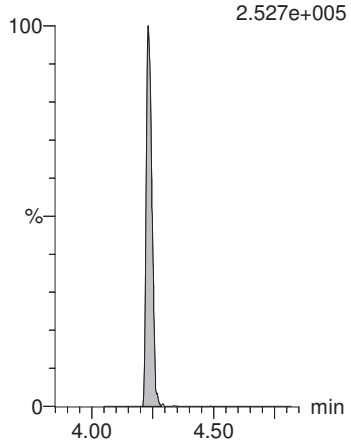


CGH 7/25/2018

Vista Analytical Laboratory

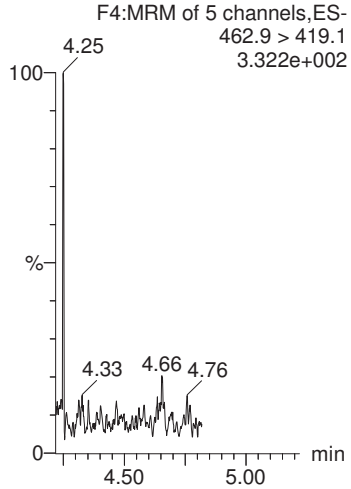
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-14.qld

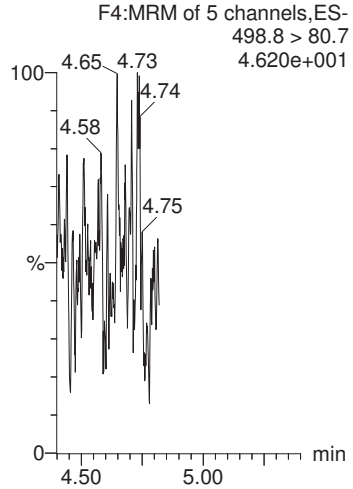
Last Altered: Wednesday, July 25, 2018 14:48:44 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:49:22 Pacific Daylight Time

Name: 180725G1_14, Date: 25-Jul-2018, Time: 11:01:35, ID: 1801824-15 CBD-1RW30-0718 0.25164, Description: CBD-1RW30-0718

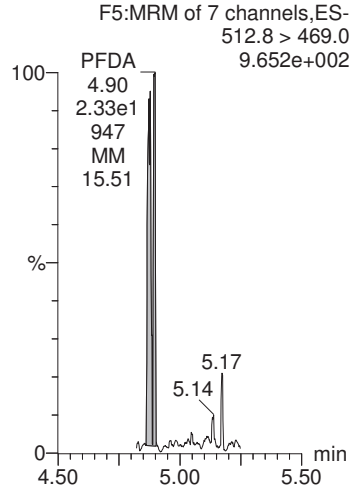
PFNA



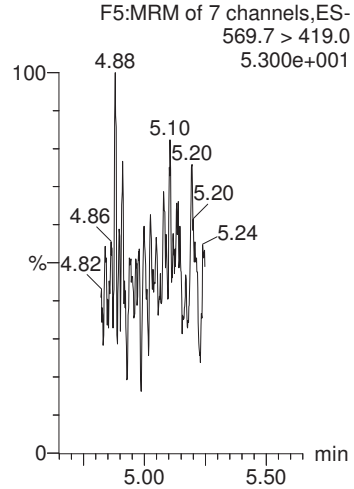
PFOS



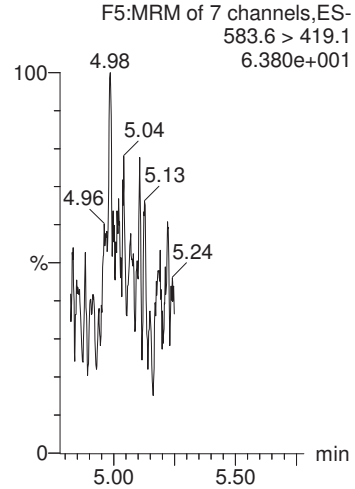
PFDA



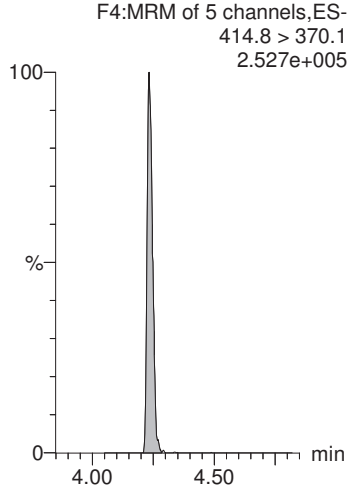
N-MeFOSAA



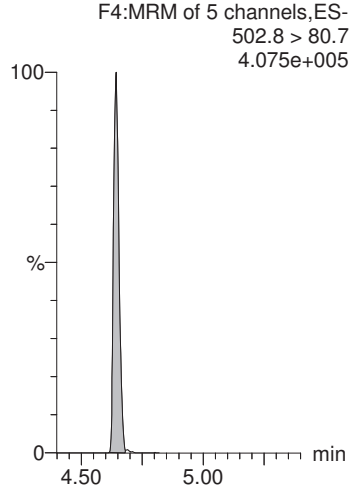
N-EtFOSAA



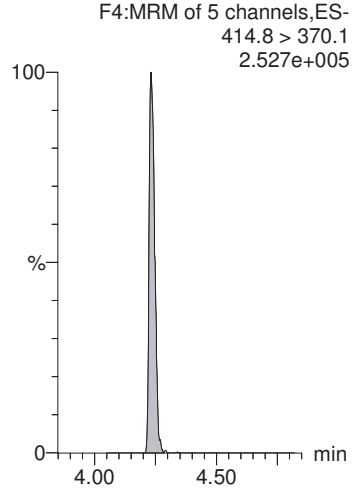
13C2-PFOA



13C4-PFOS



13C2-PFOA



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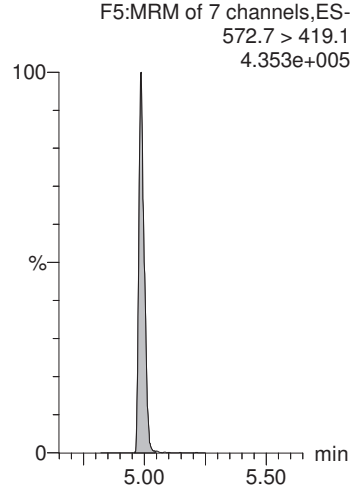

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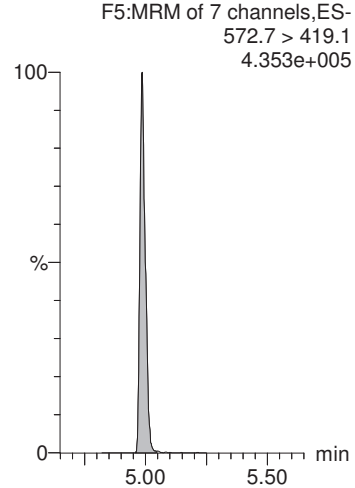


CGH 7/25/2018

Vista Analytical Laboratory

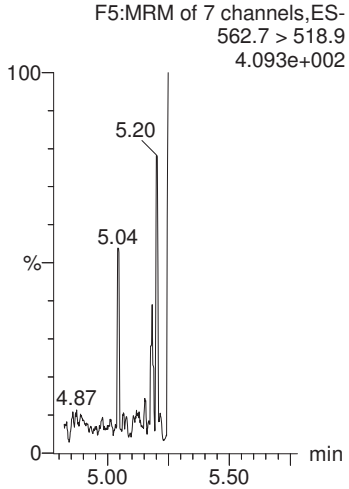
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-14.qld

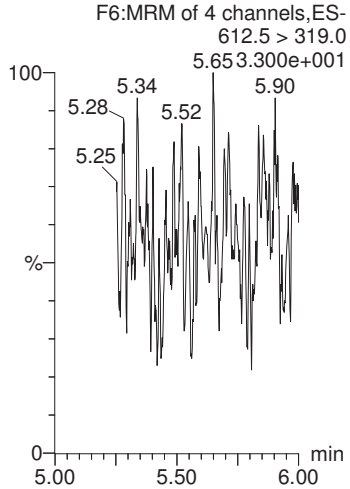
Last Altered: Wednesday, July 25, 2018 14:48:44 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:49:22 Pacific Daylight Time

Name: 180725G1_14, Date: 25-Jul-2018, Time: 11:01:35, ID: 1801824-15 CBD-1RW30-0718 0.25164, Description: CBD-1RW30-0718

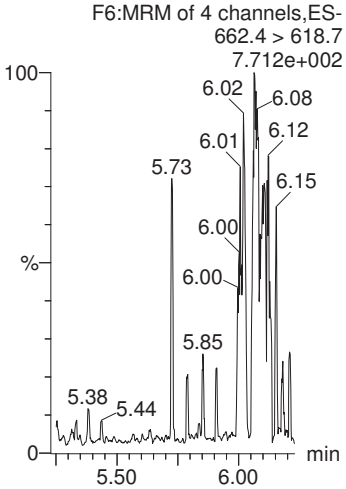
PFUnA



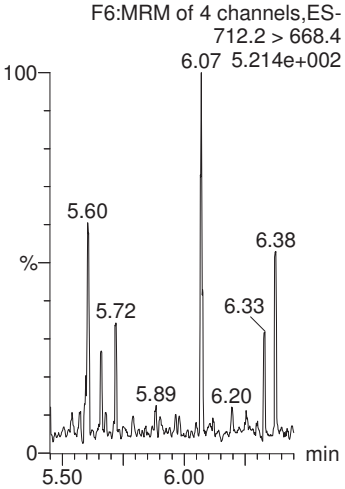
PFDoA



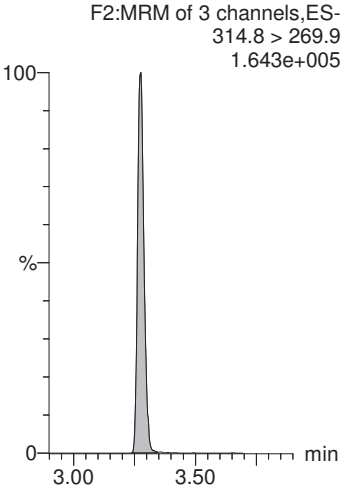
PFTrDA



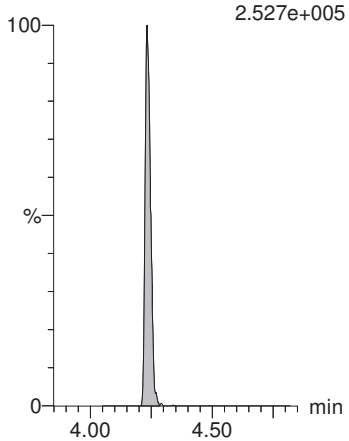
PFTeDA



13C2-PFHxA



13C2-PFOA



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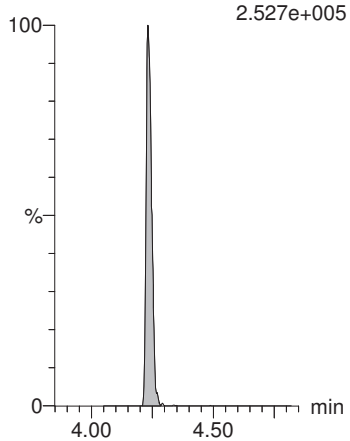
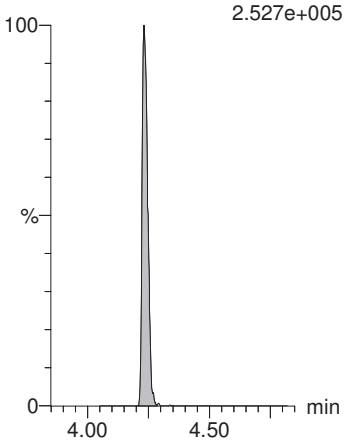
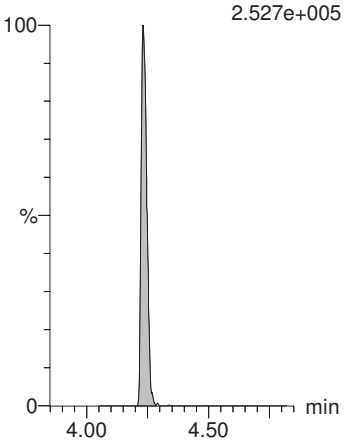


13C2-PFOA



13C2-PFOA



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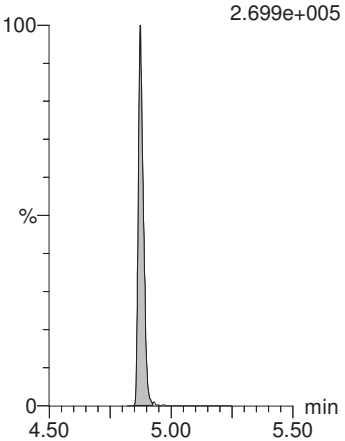


CGH 7/25/2018

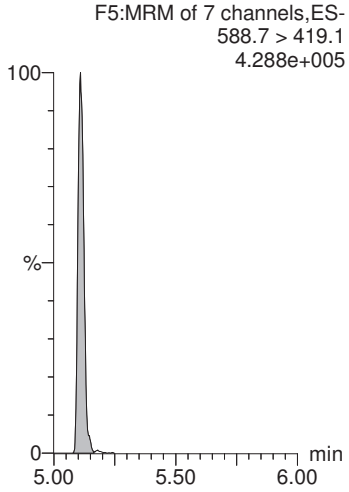
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-14.qld

Last Altered: Wednesday, July 25, 2018 14:48:44 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:49:22 Pacific Daylight Time

Name: 180725G1_14, Date: 25-Jul-2018, Time: 11:01:35, ID: 1801824-15 CBD-1RW30-0718 0.25164, Description: CBD-1RW30-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-43.qld

Last Altered: Wednesday, July 25, 2018 12:22:01 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:22:30 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_43, Date: 24-Jul-2018, Time: 22:10:01, ID: B8G0155-MS1 LFSM 0.25277, Description: LFSM

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.78e3	1.34e4	0.253		2.91	2.91	3.81	15.9	90.5
2	2	PFHxA	312.7 > 268.8	3.44e3	8.48e3	0.253		3.30	3.28	4.06	19.7	99.8
3	3	PFHpA	362.7 > 318.8	3.89e3	8.48e3	0.253		3.82	3.82	4.59	20.7	104.7
4	4	PFHxS	398.7 > 80.7	1.97e3	1.34e4	0.253		3.93	3.94	4.21	14.7	81.7
5	5	PFOA	412.8 > 369.0	3.08e3	8.48e3	0.253		4.24	4.23	3.63	19.7	99.5
6	6	PFNA	462.9 > 419.1	3.58e3	8.48e3	0.253		4.60	4.58	4.23	19.2	97.0
7	7	PFOS	498.8 >80.7	6.96e2	1.34e4	0.253		4.64	4.64	1.49	15.9	87.1
8	8	PFDA	512.8 > 469.0	3.74e3	8.48e3	0.253		4.89	4.87	4.41	20.0	101.1
9	9	N-MeFOSAA	569.7 > 419.0	2.01e3	1.50e4	0.253		5.00	5.00	5.38	18.4	93.1
10	10	N-EtFOSAA	583.6 >419.1	1.59e3	1.50e4	0.253		5.11	5.12	4.25	16.9	85.2
11	11	PFUnA	562.7 > 518.9	4.12e3	8.48e3	0.253		5.13	5.12	4.86	20.0	101.1
12	12	PFDoA	612.5 > 319.0	6.10e2	8.48e3	0.253		5.37	5.36	0.719	19.4	97.9
13	13	PFTrDA	662.4 > 618.7	3.56e3	8.48e3	0.253		5.58	5.58	4.20	18.4	93.1
14	14	PFTeDA	712.2>668.4	3.85e3	8.48e3	0.253		5.76	5.76	4.55	19.4	98.1
15	15	13C2-PFHxA	314.8 > 269.9	6.50e3	8.48e3	0.253	0.753	3.40	3.27	7.67	40.3	101.9
16	16	13C2-PFDA	514.8 > 470.0	8.41e3	8.48e3	0.253	1.023	4.83	4.88	9.93	38.4	97.1
17	17	d5-N-EtFOSAA	588.7> 419.1	1.64e4	1.50e4	0.253	1.264	4.99	5.11	43.9	137	86.7
18	18	13C2-PFOA	414.8 > 370.1	8.48e3	8.48e3	0.253	1.000	4.28	4.24	10.0	39.6	100.0
19	19	13C4-PFOS	502.8>80.7	1.34e4	1.34e4	0.253	1.000	4.71	4.65	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.50e4	1.50e4	0.253	1.000	5.04	4.99	40.0	158	100.0

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-43.qld

Last Altered: Wednesday, July 25, 2018 12:22:01 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:22:30 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_43, Date: 24-Jul-2018, Time: 22:10:01, ID: B8G0155-MS1 LFSM 0.25277, Description: LFSM

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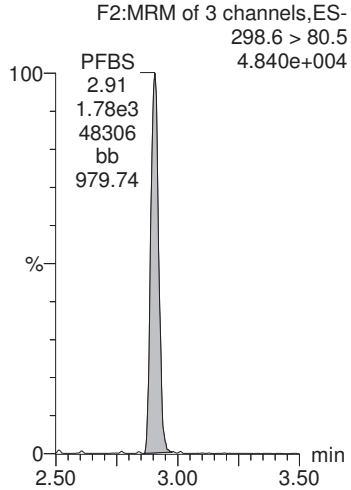

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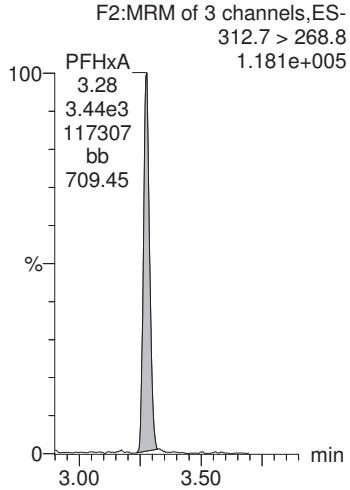

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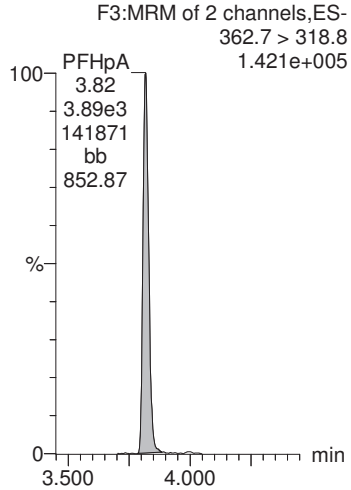

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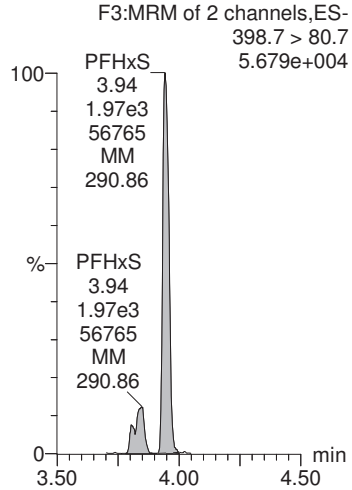

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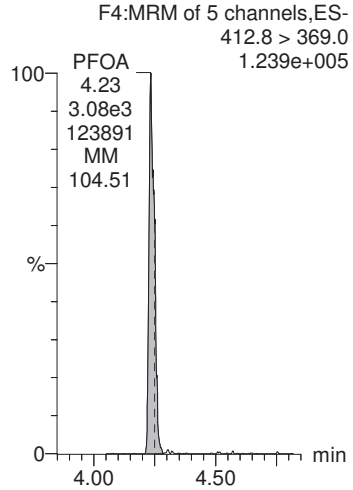

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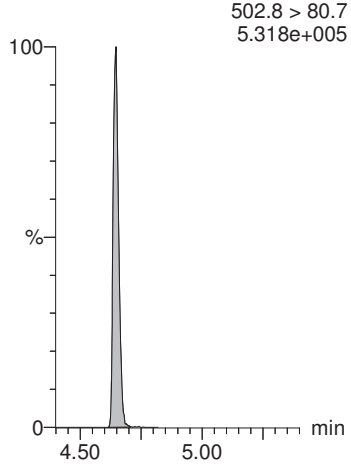

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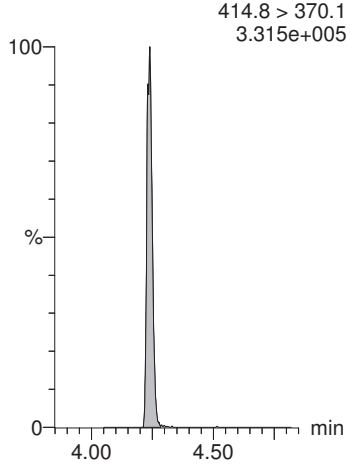

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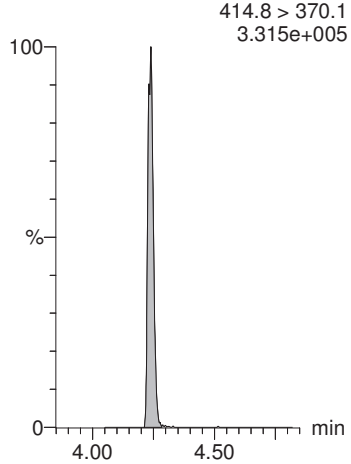

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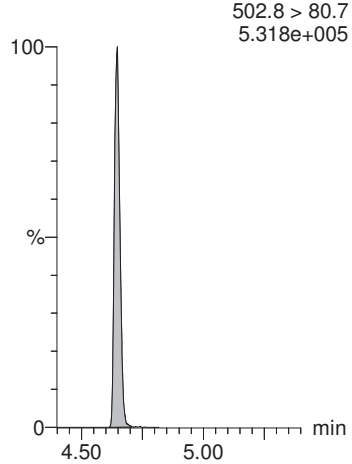

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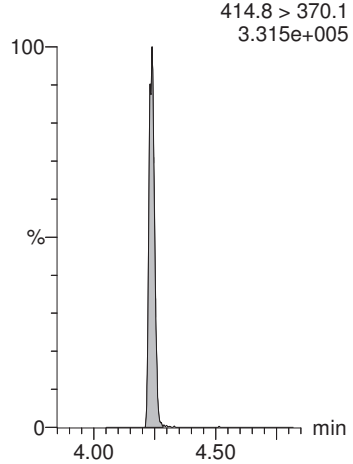

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-43.qld

Last Altered: Wednesday, July 25, 2018 12:22:01 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:22:30 Pacific Daylight Time

Name: 180724G5_43, Date: 24-Jul-2018, Time: 22:10:01, ID: B8G0155-MS1 LFSM 0.25277, Description: LFSM

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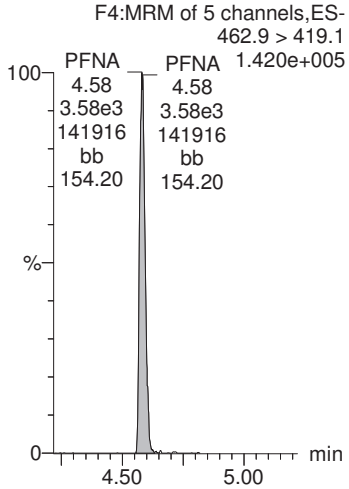

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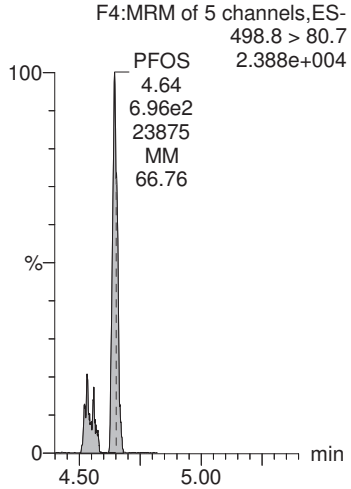

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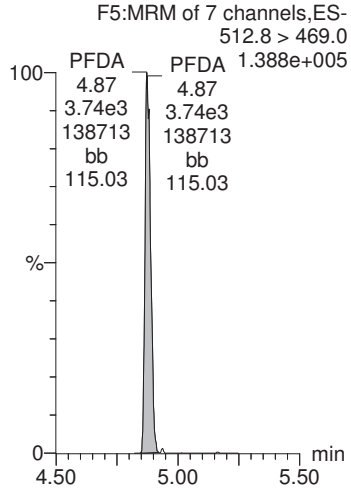

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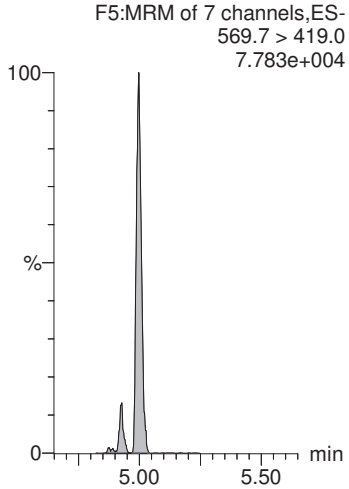

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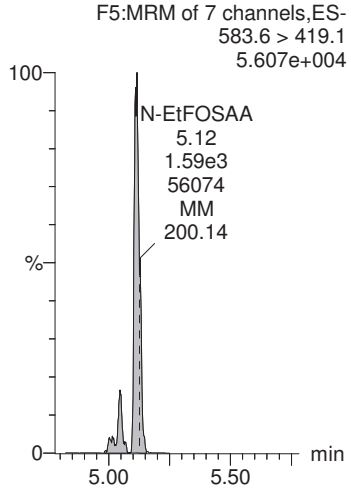

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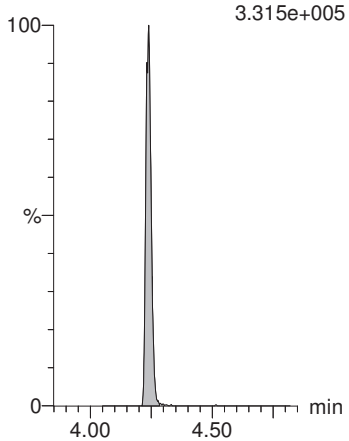

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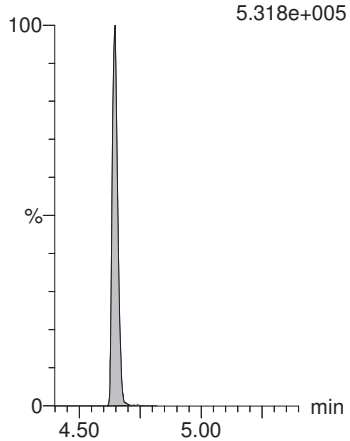

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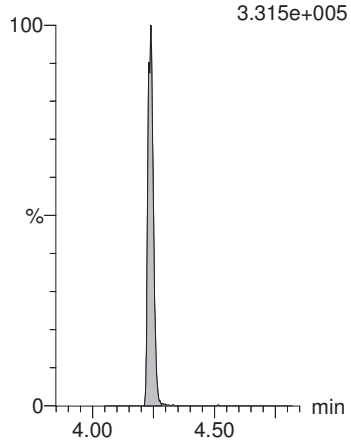

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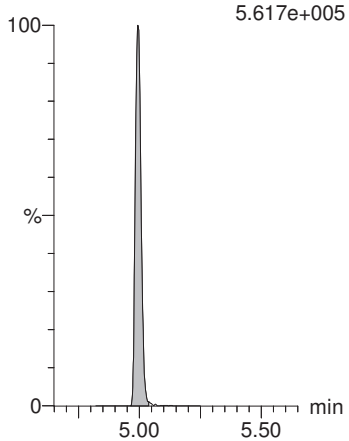

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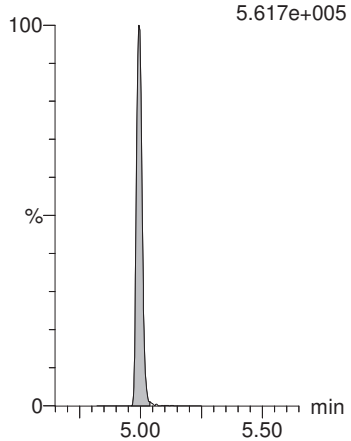

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Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-43.qld

Last Altered: Wednesday, July 25, 2018 12:22:01 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:22:30 Pacific Daylight Time

Name: 180724G5_43, Date: 24-Jul-2018, Time: 22:10:01, ID: B8G0155-MS1 LFSM 0.25277, Description: LFSM

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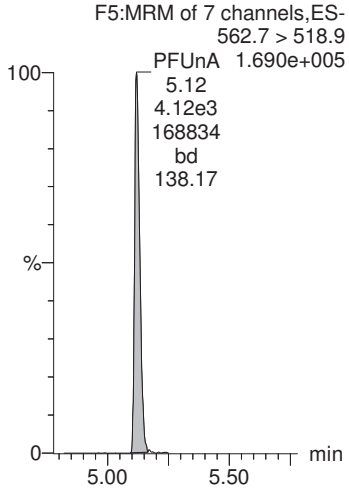

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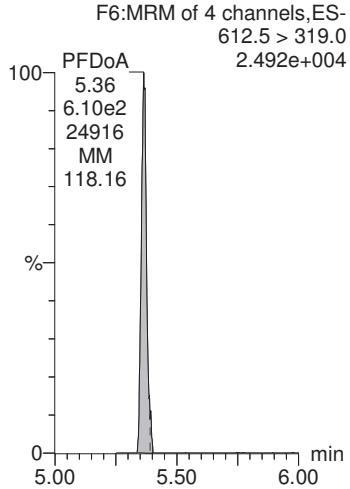

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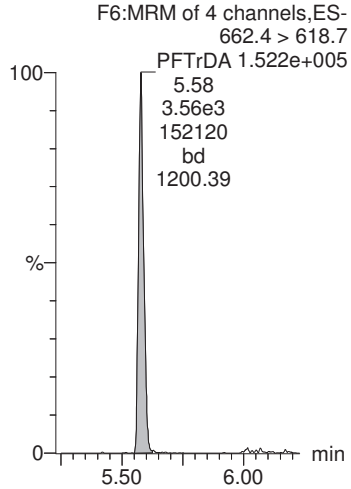

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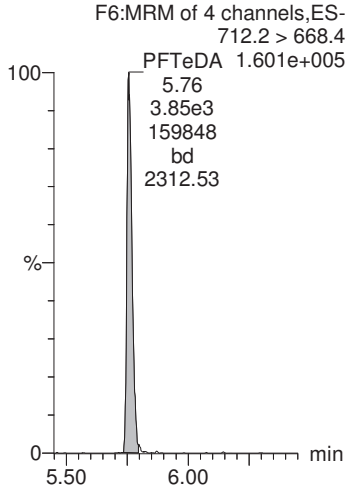

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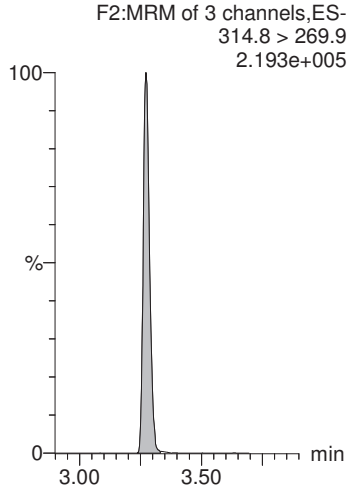

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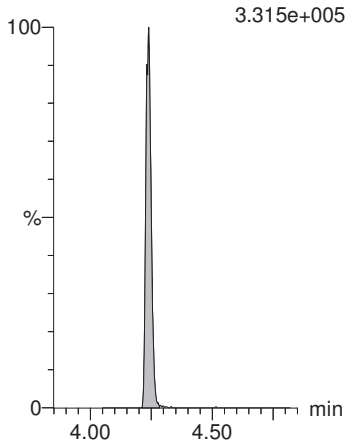

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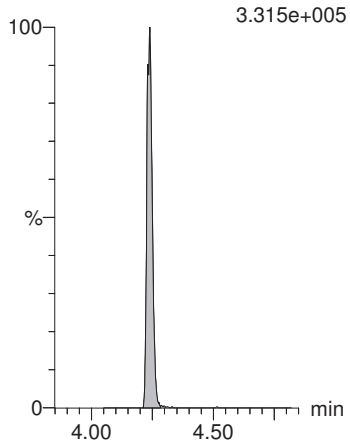

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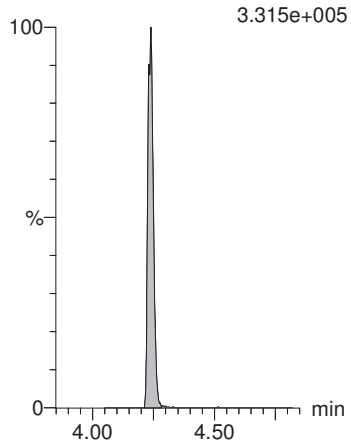

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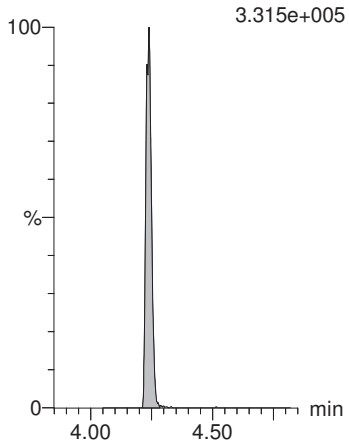

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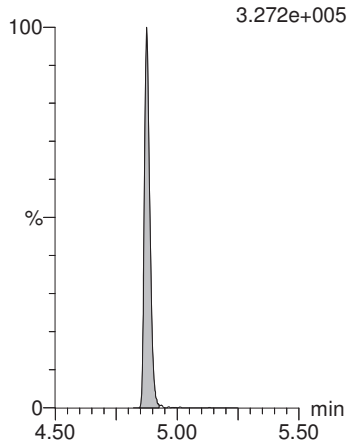

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-43.qld

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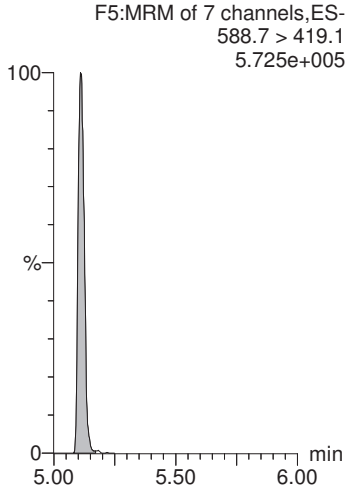
Printed: Wednesday, July 25, 2018 12:22:30 Pacific Daylight Time

Name: 180724G5_43, Date: 24-Jul-2018, Time: 22:10:01, ID: B8G0155-MS1 LFSM 0.25277, Description: LFSM

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-44.qld

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Printed: Wednesday, July 25, 2018 12:24:50 Pacific Daylight Time

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_44, Date: 24-Jul-2018, Time: 22:22:50, ID: B8G0155-MSD1 LFSMD 0.2493, Description: LFSMD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	1.79e3	1.27e4	0.249		2.90	2.91	4.05	17.1	96.0
2	2	PFHxA	312.7 > 268.8	3.58e3	8.14e3	0.249		3.30	3.28	4.40	21.7	108.2
3	3	PFHpA	362.7 > 318.8	3.73e3	8.14e3	0.249		3.81	3.82	4.59	21.0	104.6
4	4	PFHxS	398.7 > 80.7	2.10e3	1.27e4	0.249		3.92	3.94	4.73	16.8	91.8
5	5	PFOA	412.8 > 369.0	2.94e3	8.14e3	0.249		4.24	4.24	3.61	19.9	99.0
6	6	PFNA	462.9 > 419.1	3.53e3	8.14e3	0.249		4.60	4.58	4.33	20.0	99.5
7	7	PFOS	498.8 >80.7	7.81e2	1.27e4	0.249		4.64	4.64	1.76	19.1	103.0
8	8	PFDA	512.8 > 469.0	3.76e3	8.14e3	0.249		4.88	4.87	4.62	21.3	106.1
9	9	N-MeFOSAA	569.7 > 419.0	1.84e3	1.43e4	0.249		5.00	5.00	5.14	17.8	88.9
10	10	N-EtFOSAA	583.6 >419.1	1.67e3	1.43e4	0.249		5.12	5.12	4.66	18.8	93.5
11	11	PFUnA	562.7 > 518.9	4.13e3	8.14e3	0.249		5.12	5.12	5.07	21.2	105.6
12	12	PFDoA	612.5 > 319.0	6.19e2	8.14e3	0.249		5.36	5.36	0.761	20.8	103.6
13	13	PFTrDA	662.4 > 618.7	3.45e3	8.14e3	0.249		5.57	5.57	4.25	18.9	94.1
14	14	PFTeDA	712.2>668.4	3.70e3	8.14e3	0.249		5.76	5.76	4.54	19.7	98.1
15	15	13C2-PFHxA	314.8 > 269.9	6.49e3	8.14e3	0.249	0.753	3.40	3.27	7.98	42.5	106.0
16	16	13C2-PFDA	514.8 > 470.0	8.61e3	8.14e3	0.249	1.023	4.83	4.88	10.6	41.5	103.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.65e4	1.43e4	0.249	1.264	5.00	5.11	46.1	146	91.1
18	18	13C2-PFOA	414.8 > 370.1	8.14e3	8.14e3	0.249	1.000	4.28	4.23	10.0	40.1	100.0
19	19	13C4-PFOS	502.8>80.7	1.27e4	1.27e4	0.249	1.000	4.71	4.64	28.7	115	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.43e4	1.43e4	0.249	1.000	5.04	5.00	40.0	160	100.0

CGH 7/25/2018

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-44.qld

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Printed: Wednesday, July 25, 2018 12:24:50 Pacific Daylight Time

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_44, Date: 24-Jul-2018, Time: 22:22:50, ID: B8G0155-MSD1 LFSMD 0.2493, Description: LFSMD

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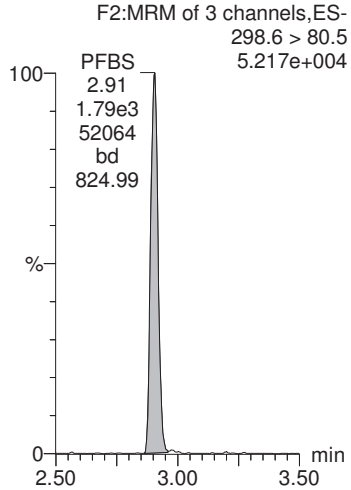

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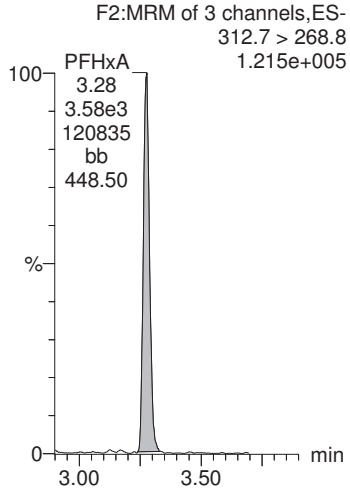

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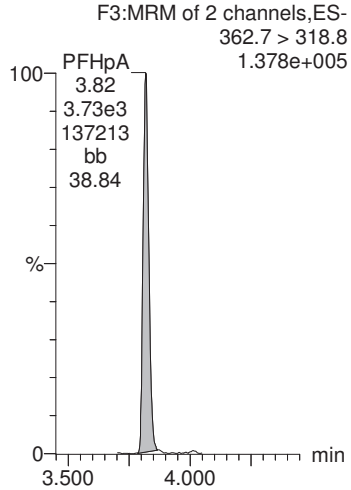
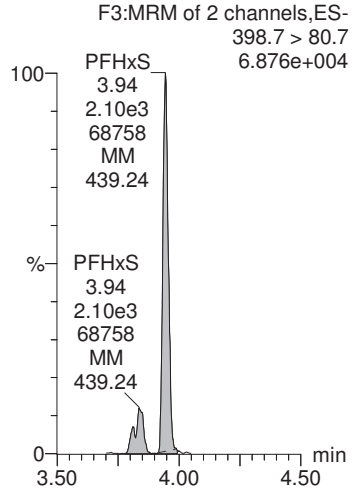
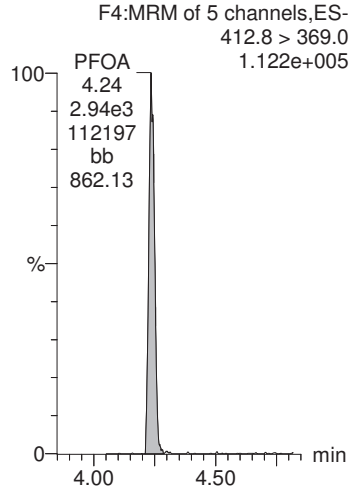


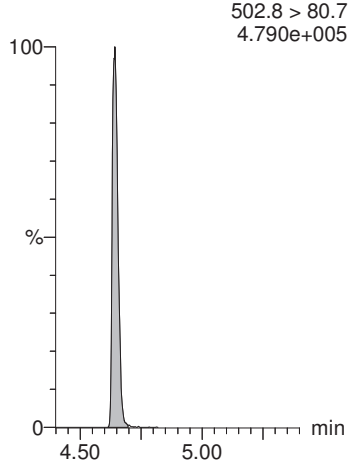
PFHxS



PFOA



13C4-PFOS



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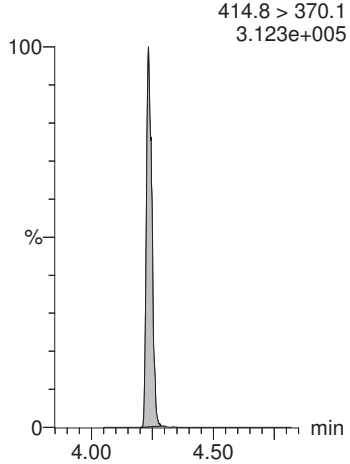

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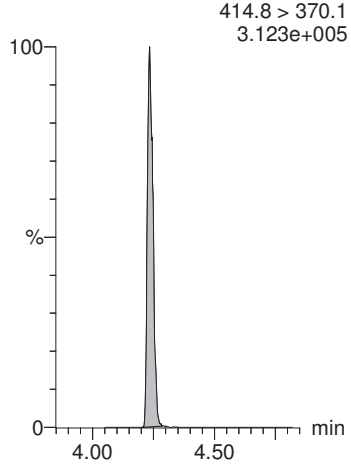

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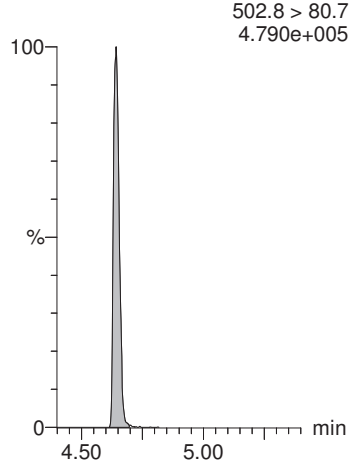

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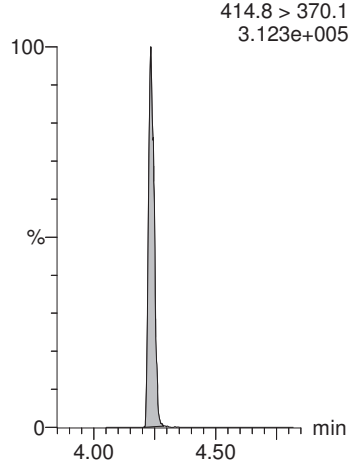

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-44.qld

Last Altered: Wednesday, July 25, 2018 12:24:18 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:24:50 Pacific Daylight Time

Name: 180724G5_44, Date: 24-Jul-2018, Time: 22:22:50, ID: B8G0155-MSD1 LFSMD 0.2493, Description: LFSMD

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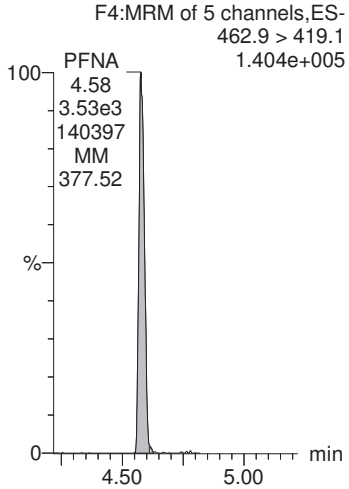

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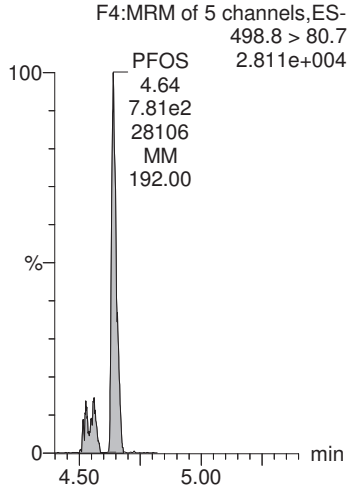

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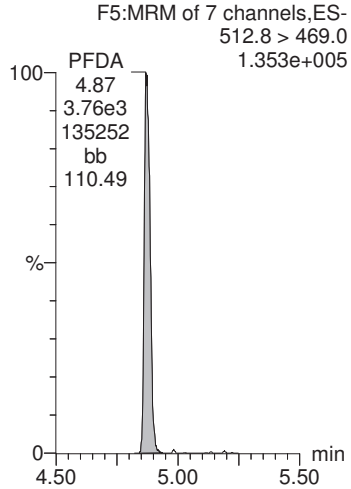
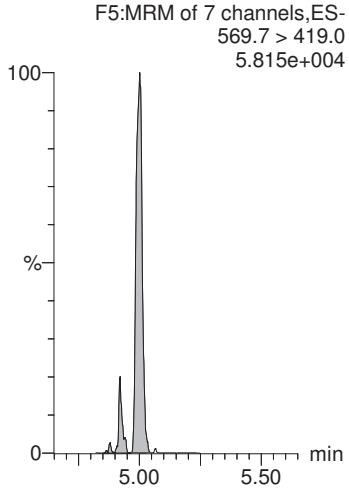


N-MeFOSAA



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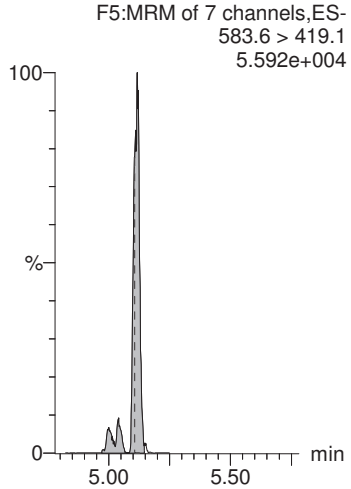

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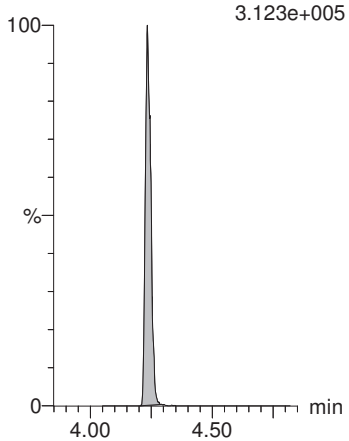

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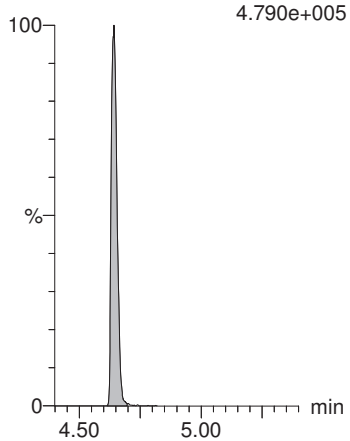

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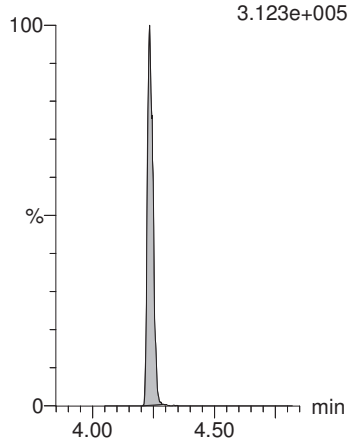

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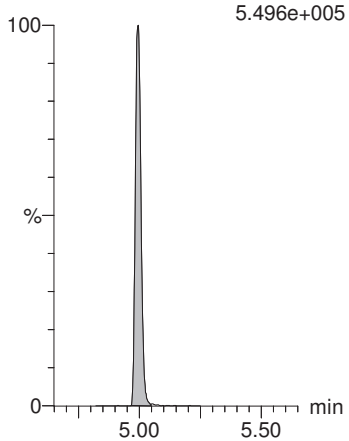

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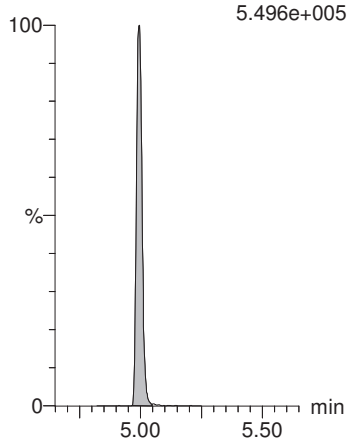

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-44.qld

Last Altered: Wednesday, July 25, 2018 12:24:18 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:24:50 Pacific Daylight Time

Name: 180724G5_44, Date: 24-Jul-2018, Time: 22:22:50, ID: B8G0155-MSD1 LFSMD 0.2493, Description: LFSMD

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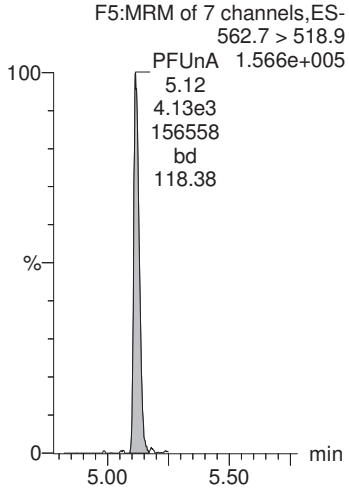

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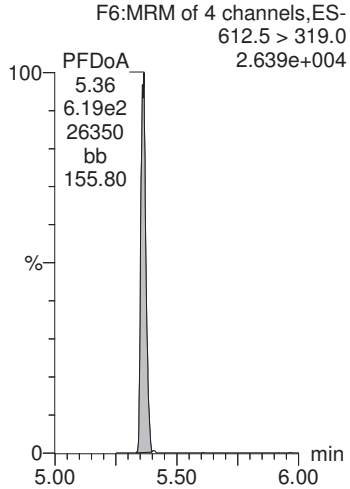

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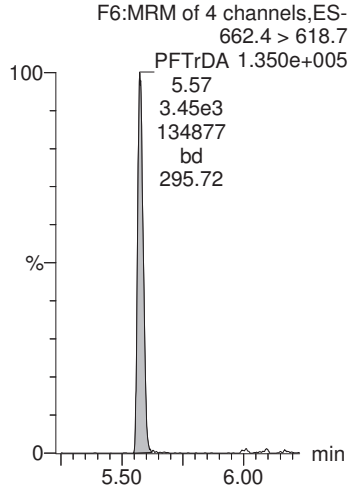

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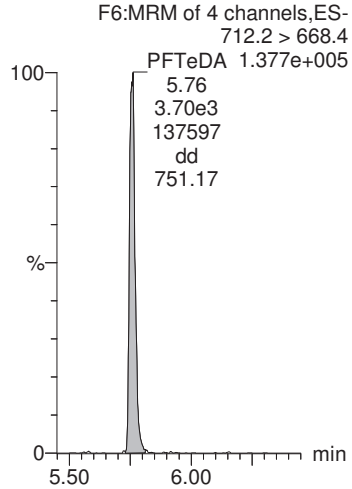

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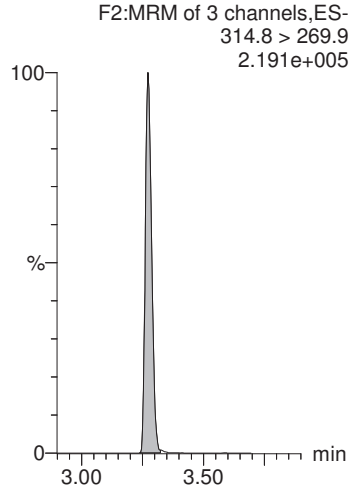

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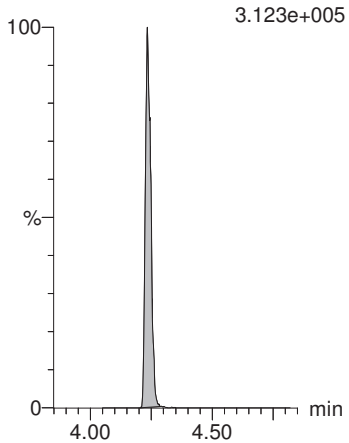

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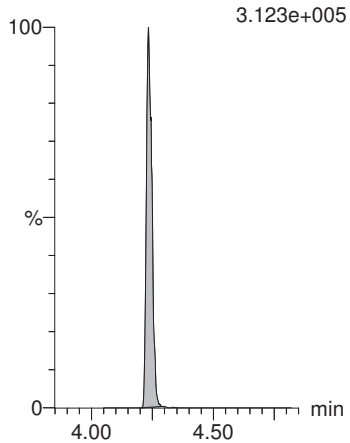

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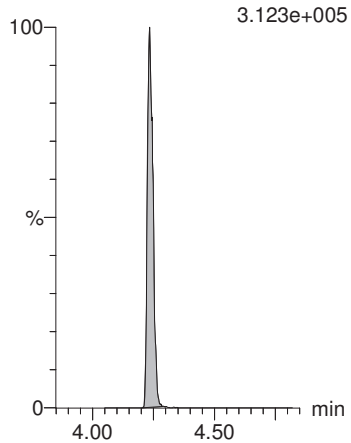

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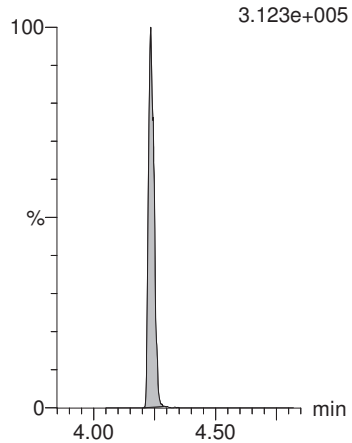

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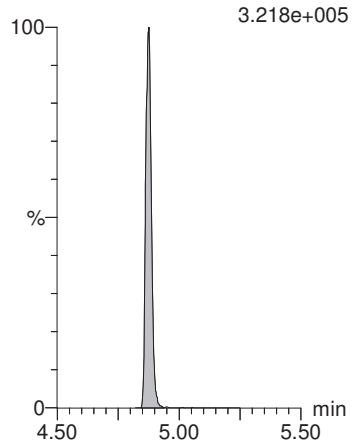


CGH 7/25/2018

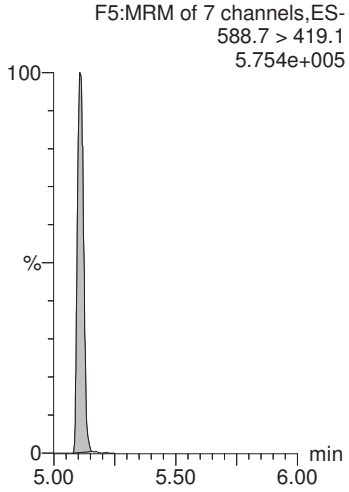
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-44.qld

Last Altered: Wednesday, July 25, 2018 12:24:18 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 12:24:50 Pacific Daylight Time

Name: 180724G5_44, Date: 24-Jul-2018, Time: 22:22:50, ID: B8G0155-MSD1 LFSMD 0.2493, Description: LFSMD

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-15.qld

Last Altered: Wednesday, July 25, 2018 14:52:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:53:09 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_15, Date: 25-Jul-2018, Time: 11:14:23, ID: 1801824-16 CBD-1FB30-0718 0.25136, Description: CBD-1FB30-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.10e4	0.251		2.90				
2	2	PFHxA	312.7 > 268.8	2.43e1	7.07e3	0.251		3.28	3.27	0.0343	0.168	
3	3	PFHpA	362.7 > 318.8	8.83e0	7.07e3	0.251		3.82	3.82	0.0125	0.0567	
4	4	PFHxS	398.7 > 80.7		1.10e4	0.251		3.94				
5	5	PFOA	412.8 > 369.0	6.98e0	7.07e3	0.251		4.23	4.23	0.00986	0.0538	
6	6	PFNA	462.9 > 419.1		7.07e3	0.251		4.58				
7	7	PFOS	498.8 >80.7		1.10e4	0.251		4.63				
8	8	PFDA	512.8 > 469.0	3.54e1	7.07e3	0.251		4.87	4.87	0.0500	0.228	
9	9	N-MeFOSAA	569.7 > 419.0		1.05e4	0.251		4.99				
10	10	N-EtFOSAA	583.6 >419.1		1.05e4	0.251		5.12				
11	11	PFUnA	562.7 > 518.9		7.07e3	0.251		5.12				
12	12	PFDoA	612.5 > 319.0		7.07e3	0.251		5.37				
13	13	PFTrDA	662.4 > 618.7		7.07e3	0.251		5.58				
14	14	PFTeDA	712.2>668.4		7.07e3	0.251		5.75				
15	15	13C2-PFHxA	314.8 > 269.9	5.43e3	7.07e3	0.251	0.753	3.40	3.27	7.68	40.6	102.0
16	16	13C2-PFDA	514.8 > 470.0	6.97e3	7.07e3	0.251	1.023	4.83	4.87	9.85	38.3	96.4
17	17	d5-N-EtFOSAA	588.7> 419.1	1.42e4	1.05e4	0.251	1.264	4.99	5.11	54.3	171	107.5
18	18	13C2-PFOA	414.8 > 370.1	7.07e3	7.07e3	0.251	1.000	4.24	4.24	10.0	39.8	100.0
19	19	13C4-PFOS	502.8>80.7	1.10e4	1.10e4	0.251	1.000	4.64	4.64	28.7	114	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.05e4	1.05e4	0.251	1.000	4.99	4.99	40.0	159	100.0

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MMM 7/25/2018

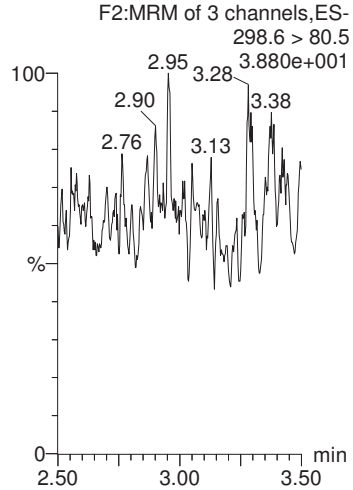
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-15.qld

Last Altered: Wednesday, July 25, 2018 14:52:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:53:09 Pacific Daylight Time

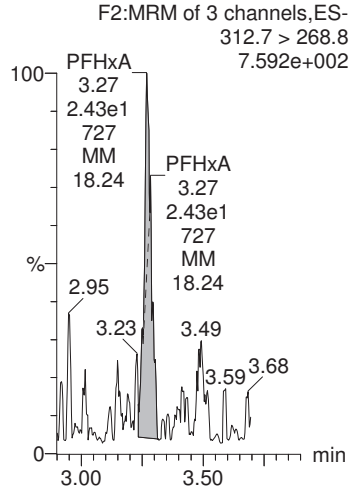
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_15, Date: 25-Jul-2018, Time: 11:14:23, ID: 1801824-16 CBD-1FB30-0718 0.25136, Description: CBD-1FB30-0718

PFBS



PFHxA



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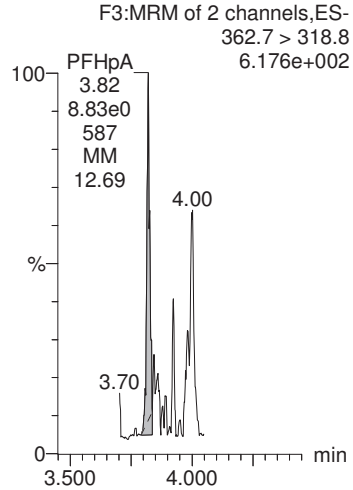

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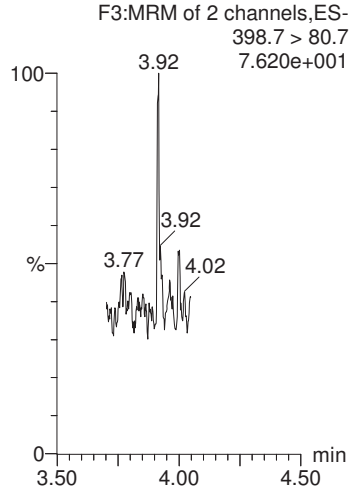
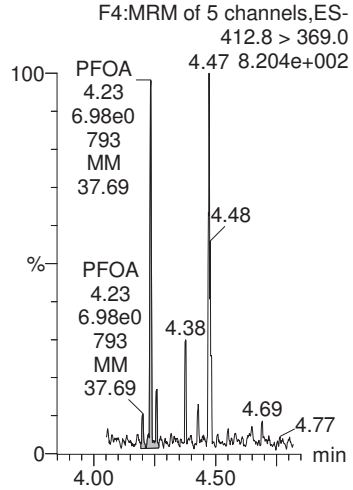


PFOA



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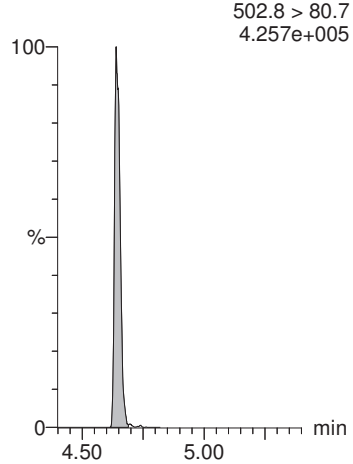

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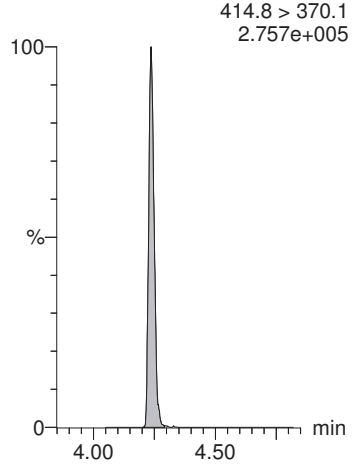

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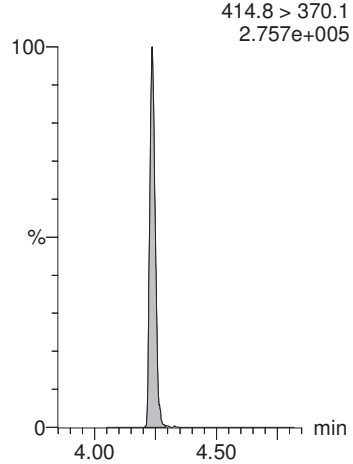

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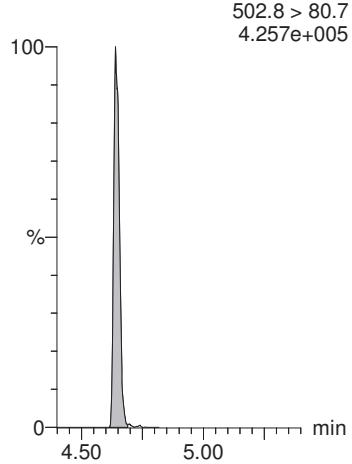

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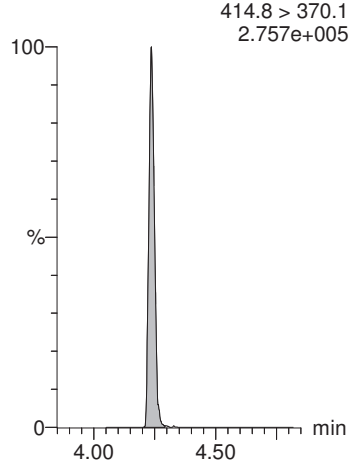


CGH 7/25/2018

Vista Analytical Laboratory

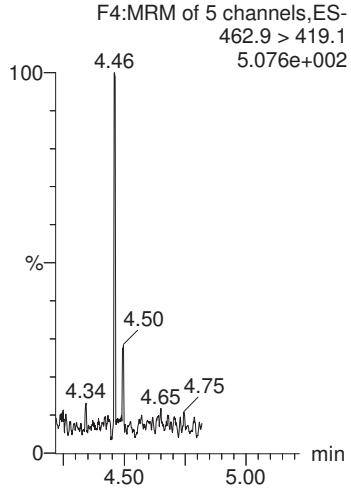
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-15.qld

Last Altered: Wednesday, July 25, 2018 14:52:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:53:09 Pacific Daylight Time

Name: 180725G1_15, Date: 25-Jul-2018, Time: 11:14:23, ID: 1801824-16 CBD-1FB30-0718 0.25136, Description: CBD-1FB30-0718

PFNA



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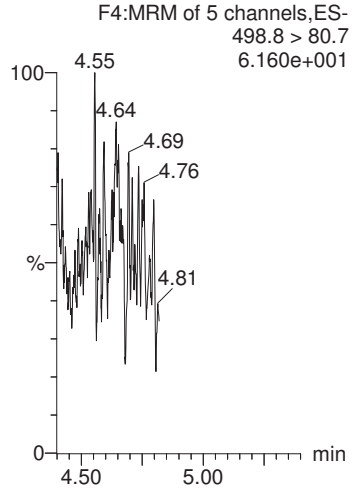

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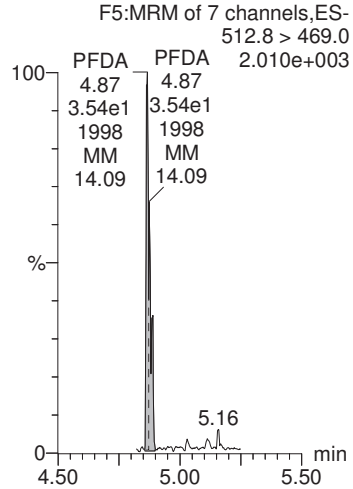

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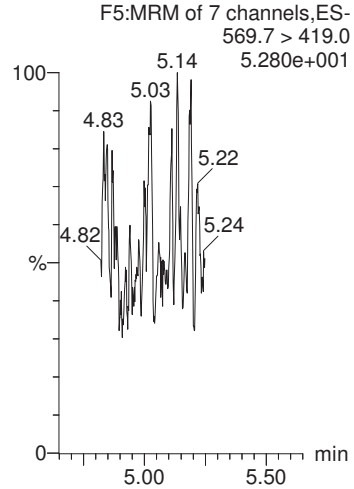

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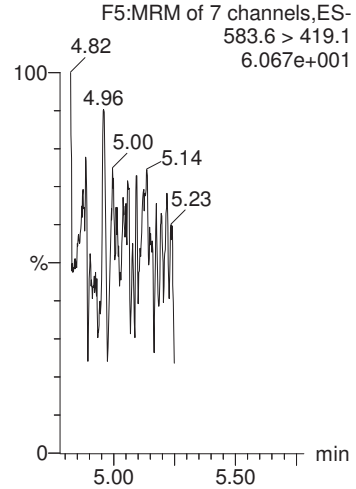

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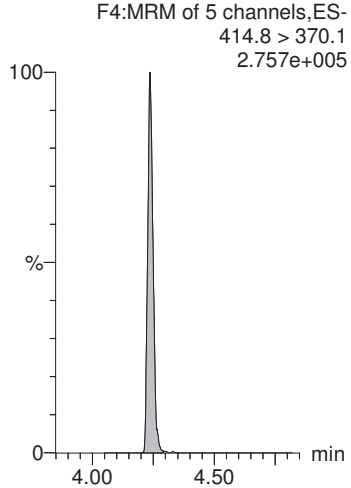

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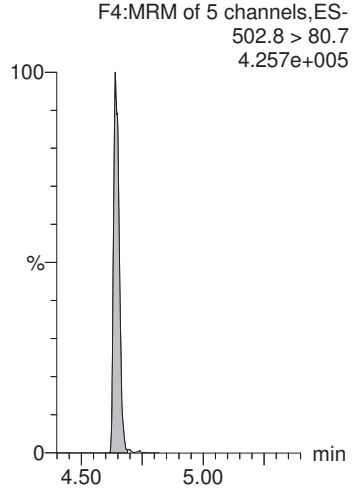

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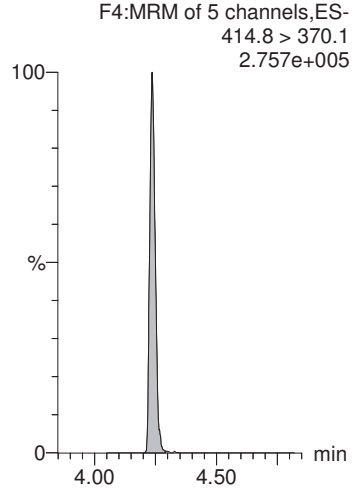
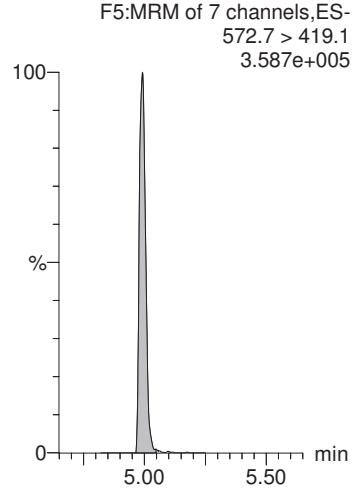


d3-N-MeFOSAA



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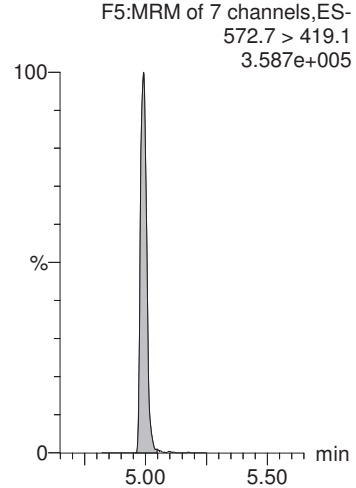

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-15.qld

Last Altered: Wednesday, July 25, 2018 14:52:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:53:09 Pacific Daylight Time

Name: 180725G1_15, Date: 25-Jul-2018, Time: 11:14:23, ID: 1801824-16 CBD-1FB30-0718 0.25136, Description: CBD-1FB30-0718

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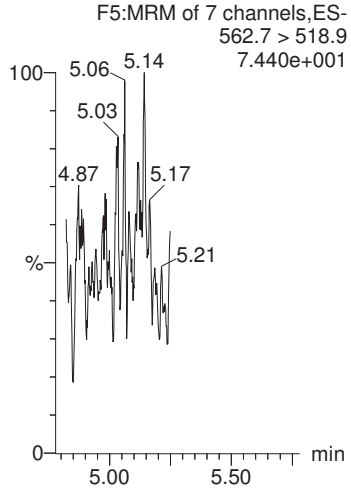

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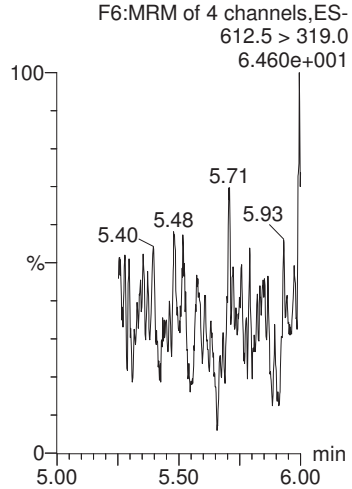

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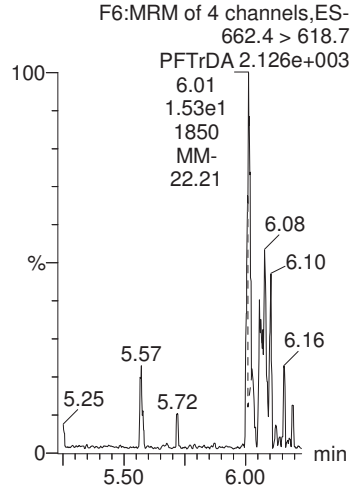

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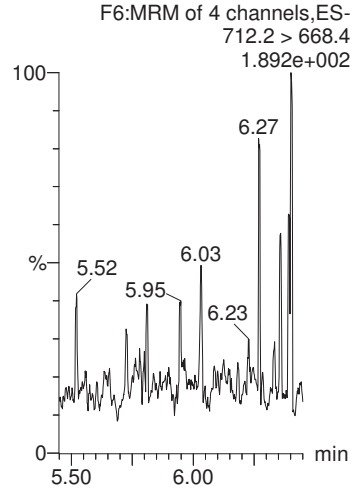

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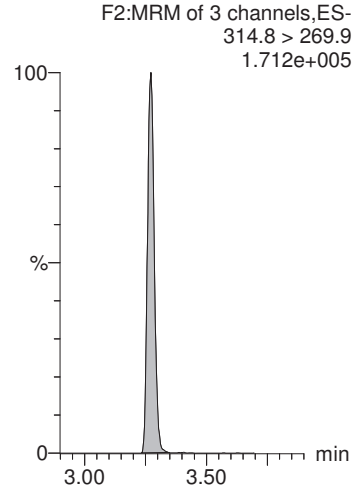

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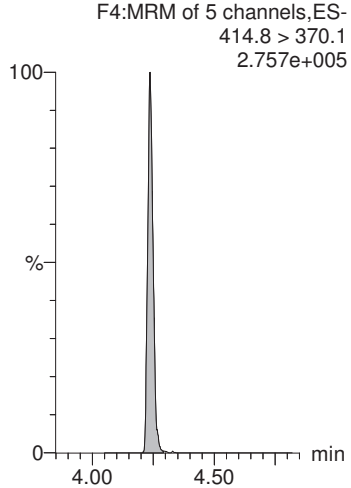

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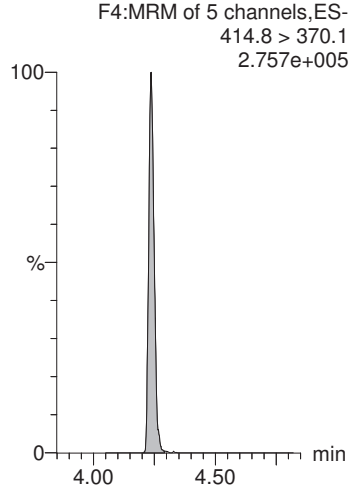

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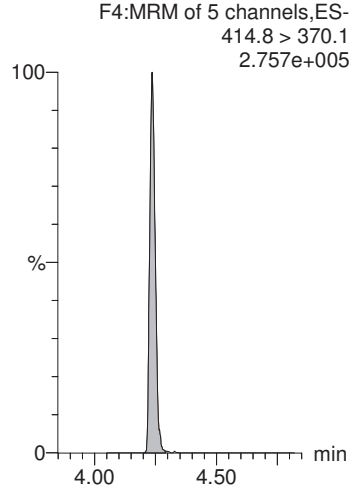

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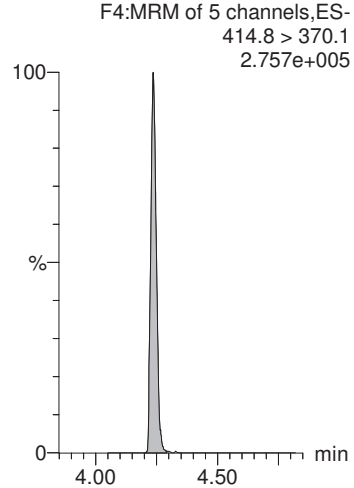

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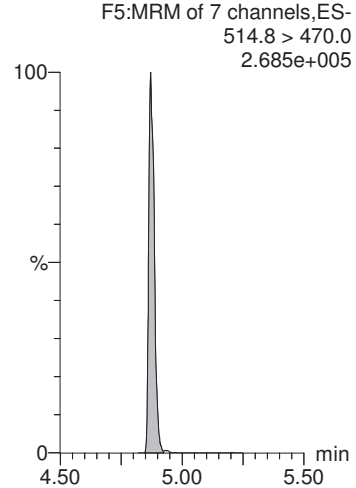


CGH 7/25/2018

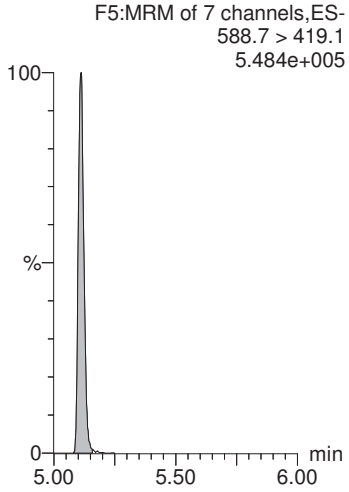
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-15.qld

Last Altered: Wednesday, July 25, 2018 14:52:47 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:53:09 Pacific Daylight Time

Name: 180725G1_15, Date: 25-Jul-2018, Time: 11:14:23, ID: 1801824-16 CBD-1FB30-0718 0.25136, Description: CBD-1FB30-0718

d5-N-EtFOSAA



CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-16.qld

Last Altered: Wednesday, July 25, 2018 14:55:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:56:01 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_16, Date: 25-Jul-2018, Time: 11:27:13, ID: 1801824-17 CBD-1RW31-0718 0.25381, Description: CBD-1RW31-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.04e4	0.254		2.90				
2	2	PFHxA	312.7 > 268.8		6.40e3	0.254		3.27				
3	3	PFHpA	362.7 > 318.8		6.40e3	0.254		3.81				
4	4	PFHxS	398.7 > 80.7		1.04e4	0.254		3.94				
5	5	PFOA	412.8 > 369.0	2.68e1	6.40e3	0.254		4.22	4.24	0.0420	0.227	
6	6	PFNA	462.9 > 419.1	2.73e0	6.40e3	0.254		4.57	4.26	0.00426	0.0193	
7	7	PFOS	498.8 >80.7		1.04e4	0.254		4.63				
8	8	PFDA	512.8 > 469.0	1.78e1	6.40e3	0.254		4.86	4.89	0.0278	0.126	
9	9	N-MeFOSAA	569.7 > 419.0	3.21e0	1.09e4	0.254		4.99	4.99	0.0118	0.0402	
10	10	N-EtFOSAA	583.6 >419.1		1.09e4	0.254		5.12				
11	11	PFUnA	562.7 > 518.9		6.40e3	0.254		5.11				
12	12	PFDoA	612.5 > 319.0		6.40e3	0.254		5.36				
13	13	PFTrDA	662.4 > 618.7		6.40e3	0.254		5.57				
14	14	PFTeDA	712.2>668.4		6.40e3	0.254		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	4.96e3	6.40e3	0.254	0.753	3.40	3.27	7.75	40.6	103.0
16	16	13C2-PFDA	514.8 > 470.0	6.10e3	6.40e3	0.254	1.023	4.83	4.88	9.54	36.7	93.3
17	17	d5-N-EtFOSAA	588.7> 419.1	1.25e4	1.09e4	0.254	1.264	4.99	5.11	46.0	143	91.0
18	18	13C2-PFOA	414.8 > 370.1	6.40e3	6.40e3	0.254	1.000	4.24	4.23	10.0	39.4	100.0
19	19	13C4-PFOS	502.8>80.7	1.04e4	1.04e4	0.254	1.000	4.64	4.64	28.7	113	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.09e4	1.09e4	0.254	1.000	4.99	4.99	40.0	158	100.0

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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-16.qld

Last Altered: Wednesday, July 25, 2018 14:55:41 Pacific Daylight Time
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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_16, Date: 25-Jul-2018, Time: 11:27:13, ID: 1801824-17 CBD-1RW31-0718 0.25381, Description: CBD-1RW31-0718

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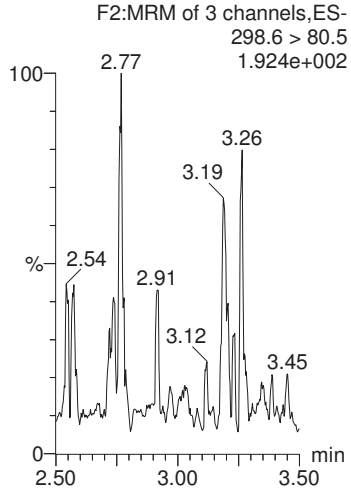
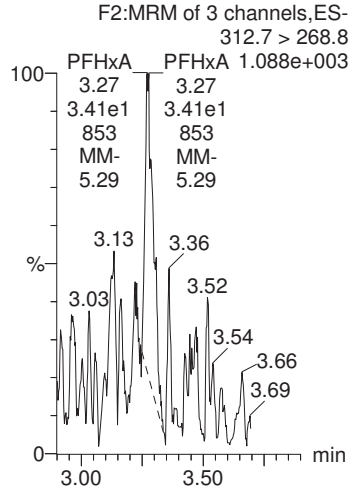


PFHxA



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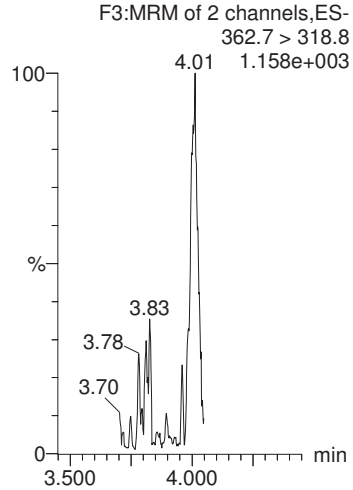

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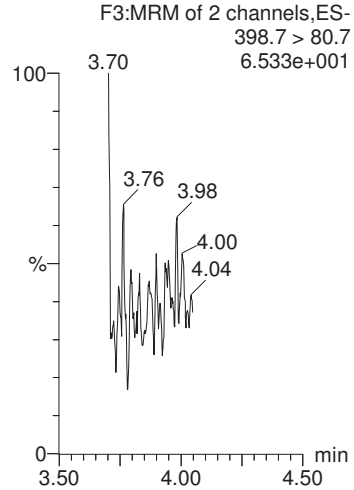

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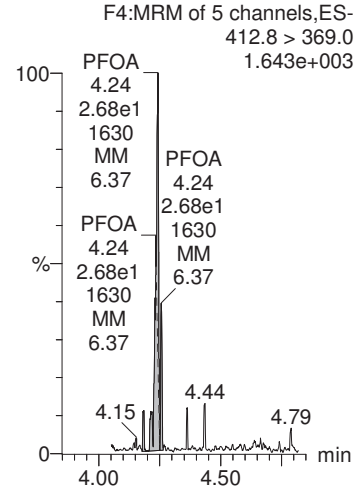

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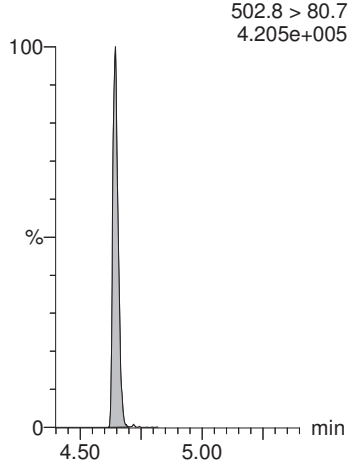

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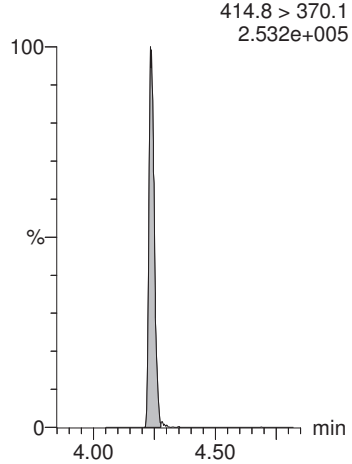

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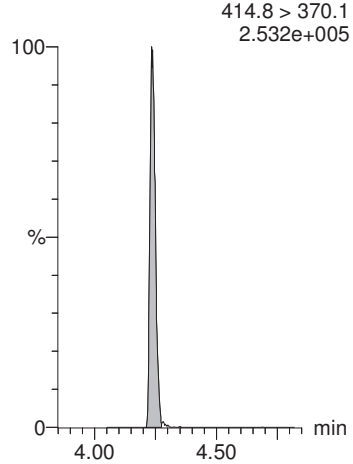

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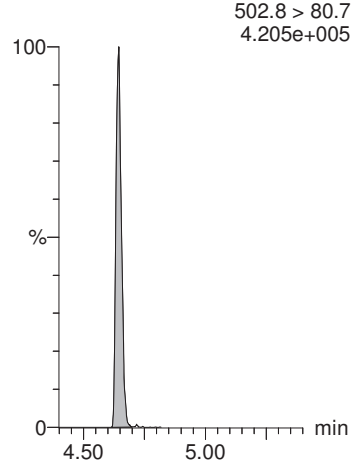

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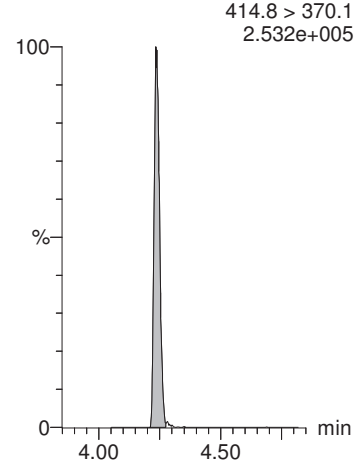

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-16.qld

Last Altered: Wednesday, July 25, 2018 14:55:41 Pacific Daylight Time
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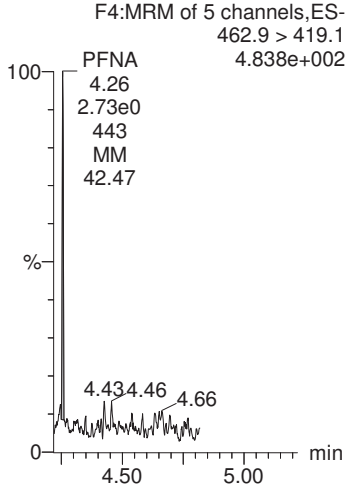
Name: 180725G1_16, Date: 25-Jul-2018, Time: 11:27:13, ID: 1801824-17 CBD-1RW31-0718 0.25381, Description: CBD-1RW31-0718

PFNA



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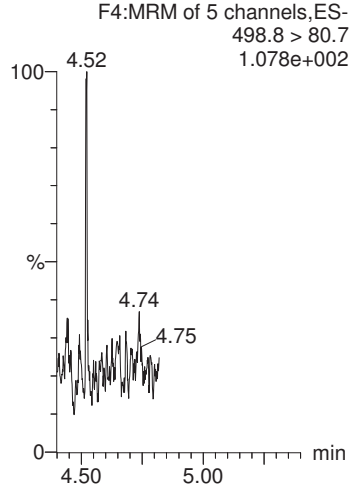

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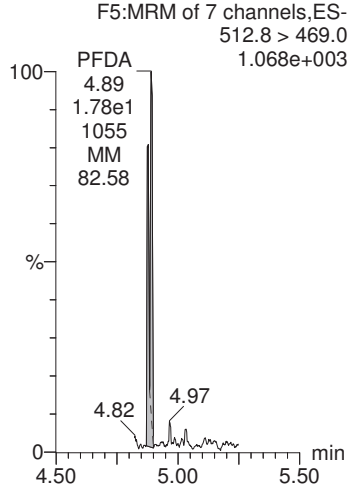

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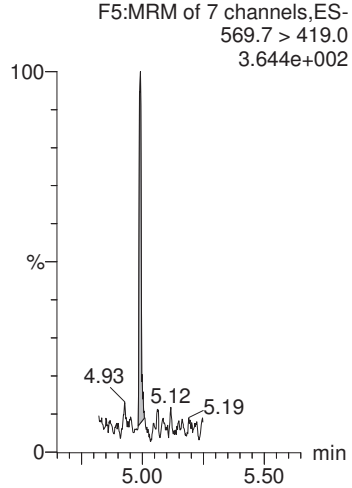

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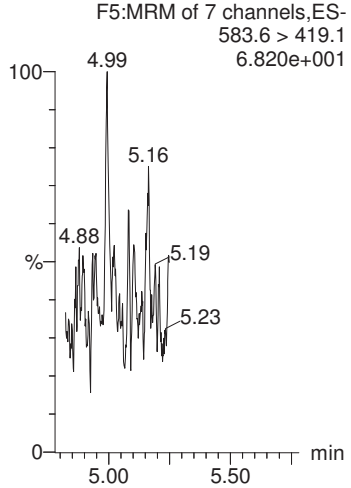

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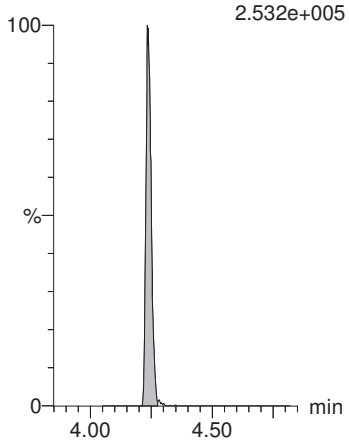

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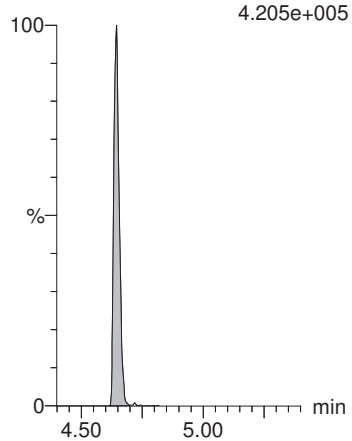

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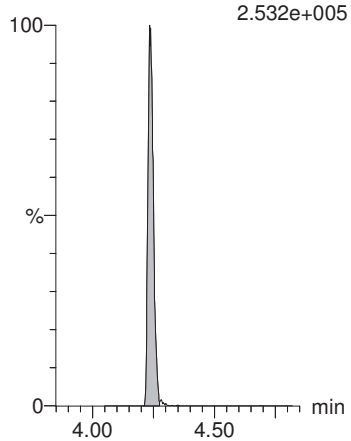

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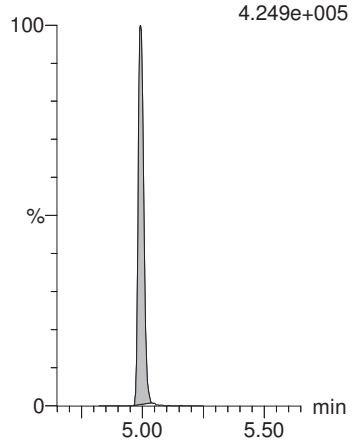

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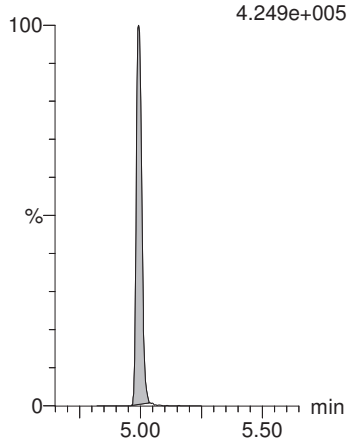

CGH 7/25/2018

Vista Analytical Laboratory

MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-16.qld

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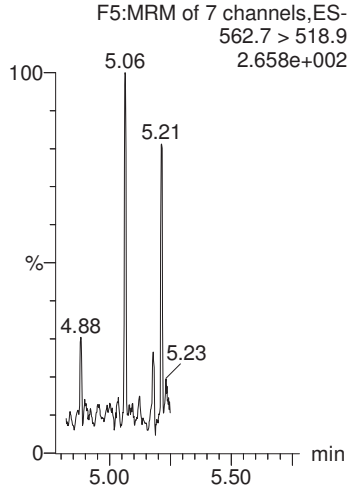
Name: 180725G1_16, Date: 25-Jul-2018, Time: 11:27:13, ID: 1801824-17 CBD-1RW31-0718 0.25381, Description: CBD-1RW31-0718

PFUnA



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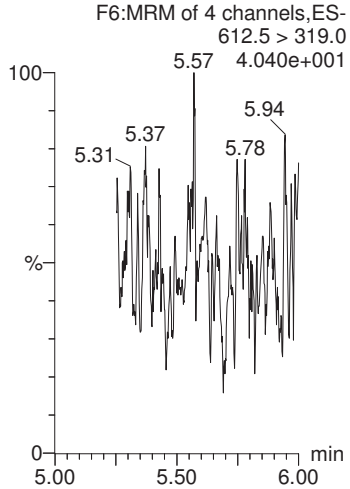

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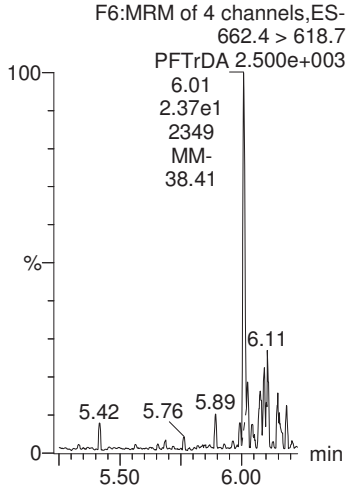
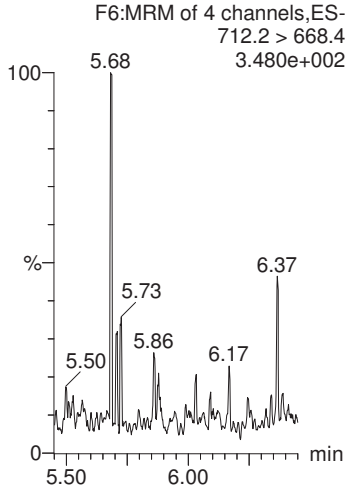


PFTeDA



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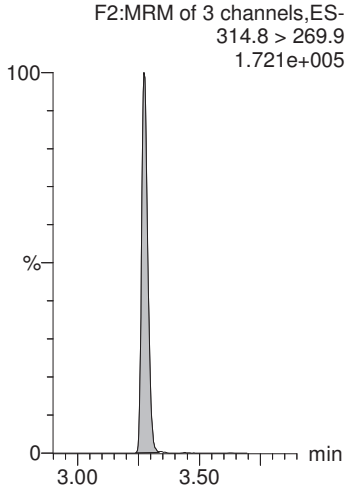

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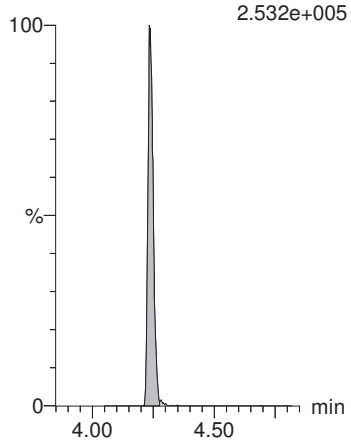

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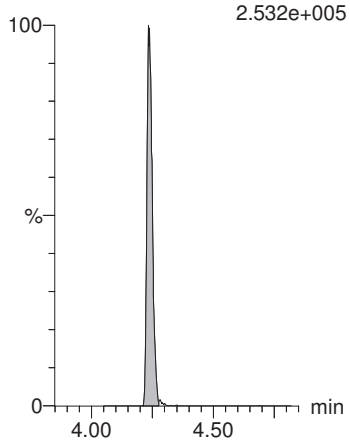

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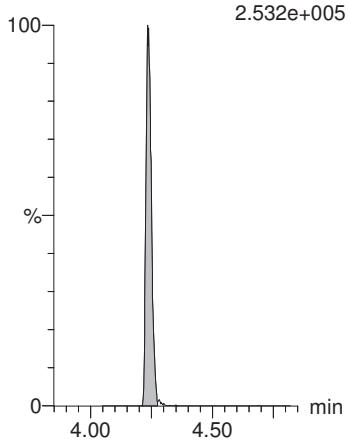

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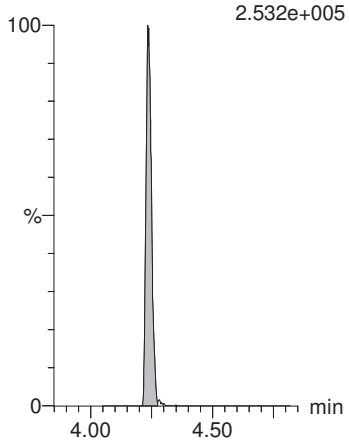

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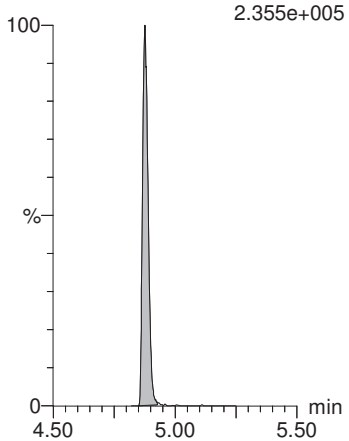


CGH 7/25/2018

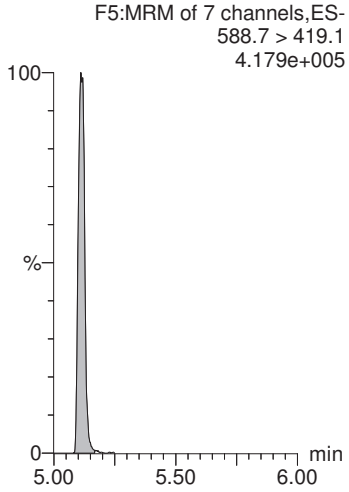
MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-16.qld

Last Altered: Wednesday, July 25, 2018 14:55:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:56:01 Pacific Daylight Time

Name: 180725G1_16, Date: 25-Jul-2018, Time: 11:27:13, ID: 1801824-17 CBD-1RW31-0718 0.25381, Description: CBD-1RW31-0718

d5-N-EtFOSAA



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MMM 7/25/2018

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-17.qld

Last Altered: Wednesday, July 25, 2018 14:58:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:59:49 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_17, Date: 25-Jul-2018, Time: 11:40:03, ID: 1801824-18 CBD-1FB31-0718 0.25806, Description: CBD-1FB31-0718

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5		1.08e4	0.258		2.90				
2	2	PFHxA	312.7 > 268.8	1.61e1	6.86e3	0.258		3.27	3.29	0.0235	0.112	
3	3	PFHpA	362.7 > 318.8	6.11e0	6.86e3	0.258		3.81	3.82	0.00891	0.0394	
4	4	PFHxS	398.7 > 80.7		1.08e4	0.258		3.94				
5	5	PFOA	412.8 > 369.0	1.20e1	6.86e3	0.258		4.22	4.27	0.0175	0.0929	
6	6	PFNA	462.9 > 419.1		6.86e3	0.258		4.57				
7	7	PFOS	498.8 >80.7		1.08e4	0.258		4.63				
8	8	PFDA	512.8 > 469.0	1.10e1	6.86e3	0.258		4.86	4.86	0.0161	0.0714	
9	9	N-MeFOSAA	569.7 > 419.0		1.03e4	0.258		4.99				
10	10	N-EtFOSAA	583.6 >419.1	5.24e0	1.03e4	0.258		5.12	5.12	0.0203	0.0788	
11	11	PFUnA	562.7 > 518.9		6.86e3	0.258		5.11				
12	12	PFDoA	612.5 > 319.0		6.86e3	0.258		5.36				
13	13	PFTrDA	662.4 > 618.7		6.86e3	0.258		5.57				
14	14	PFTeDA	712.2>668.4		6.86e3	0.258		5.74				
15	15	13C2-PFHxA	314.8 > 269.9	5.14e3	6.86e3	0.258	0.753	3.39	3.28	7.50	38.6	99.6
16	16	13C2-PFDA	514.8 > 470.0	6.43e3	6.86e3	0.258	1.023	4.82	4.87	9.37	35.5	91.7
17	17	d5-N-EtFOSAA	588.7> 419.1	1.28e4	1.03e4	0.258	1.264	4.99	5.10	49.6	152	98.1
18	18	13C2-PFOA	414.8 > 370.1	6.86e3	6.86e3	0.258	1.000	4.24	4.23	10.0	38.8	100.0
19	19	13C4-PFOS	502.8>80.7	1.08e4	1.08e4	0.258	1.000	4.64	4.64	28.7	111	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.03e4	1.03e4	0.258	1.000	4.99	4.99	40.0	155	100.0

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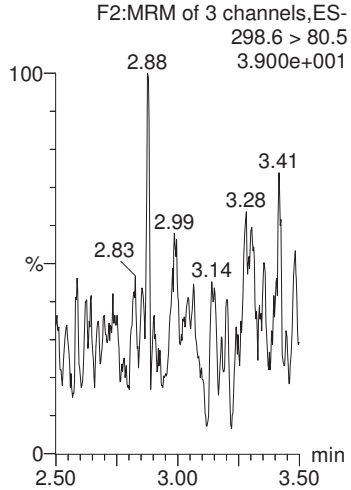
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-17.qld

Last Altered: Wednesday, July 25, 2018 14:58:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:59:49 Pacific Daylight Time

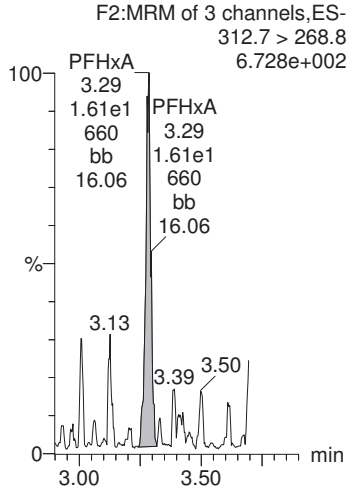
Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_17, Date: 25-Jul-2018, Time: 11:40:03, ID: 1801824-18 CBD-1FB31-0718 0.25806, Description: CBD-1FB31-0718

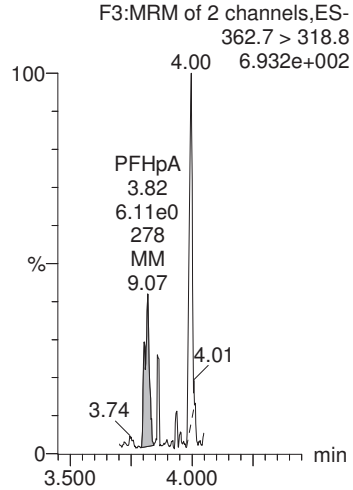
PFBS



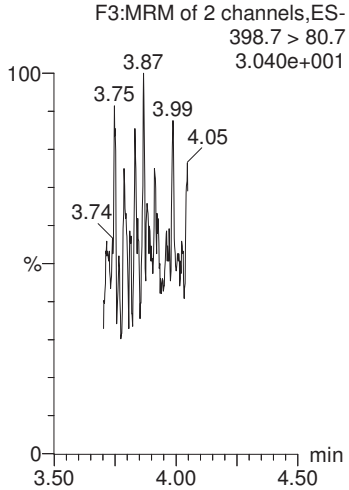
PFHxA



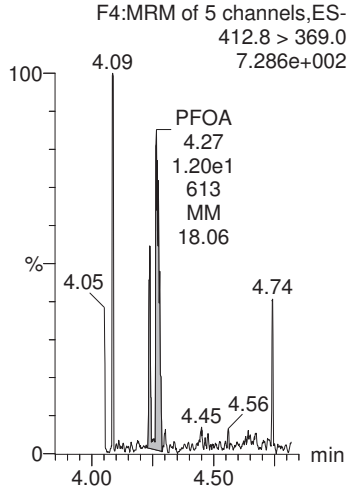
PFHpA



PFHxS



PFOA



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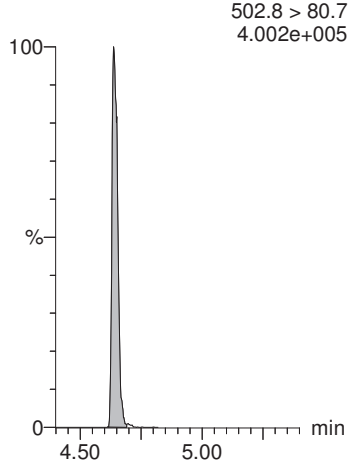

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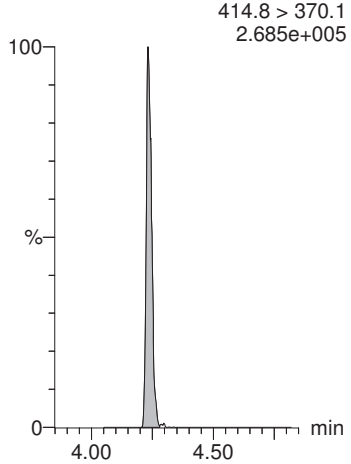

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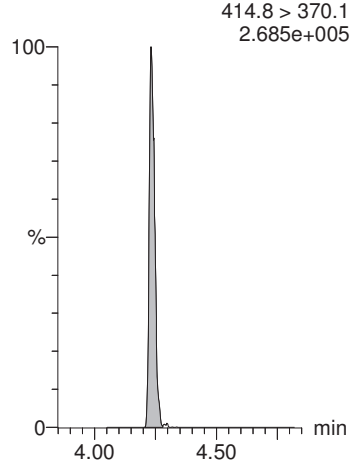

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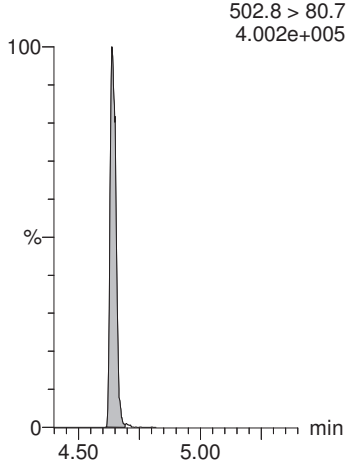

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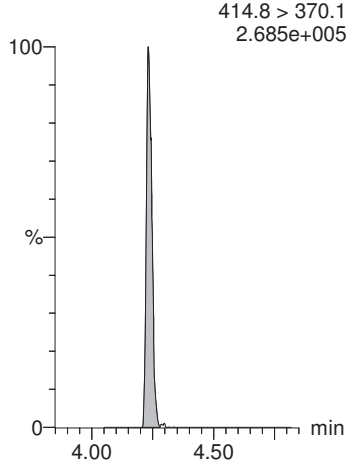

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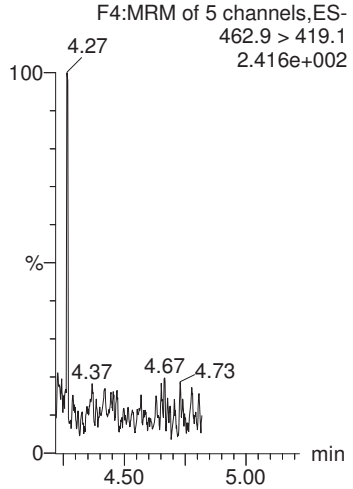
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-17.qld

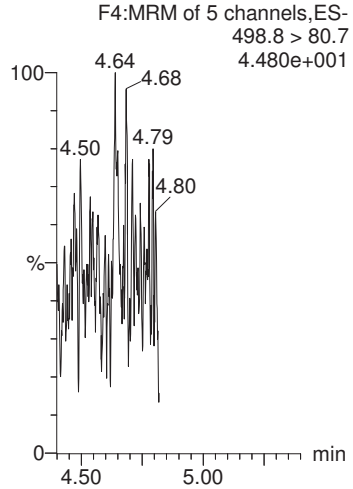
Last Altered: Wednesday, July 25, 2018 14:58:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:59:49 Pacific Daylight Time

Name: 180725G1_17, Date: 25-Jul-2018, Time: 11:40:03, ID: 1801824-18 CBD-1FB31-0718 0.25806, Description: CBD-1FB31-0718

PFNA



PFOS



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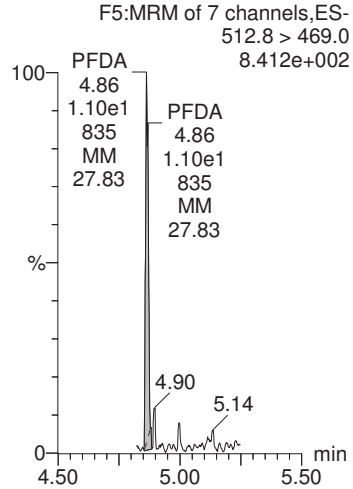

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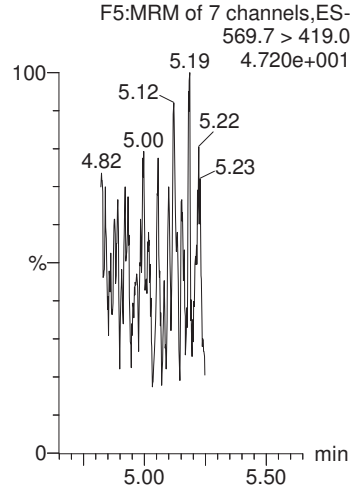

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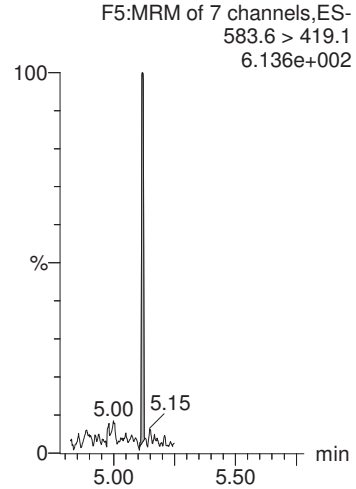

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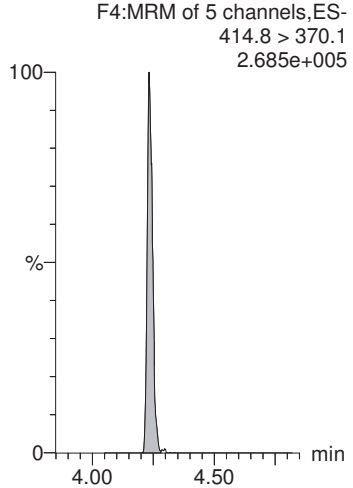

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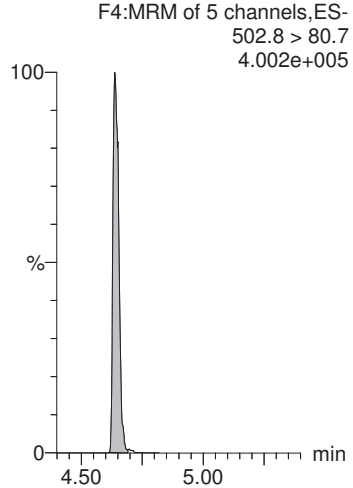

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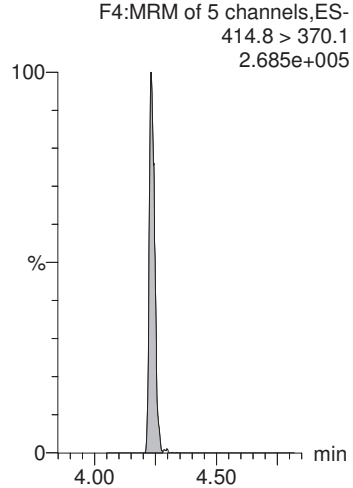

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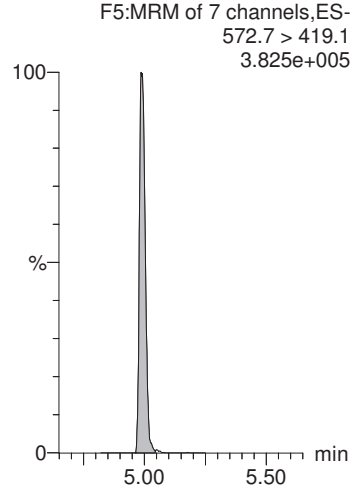

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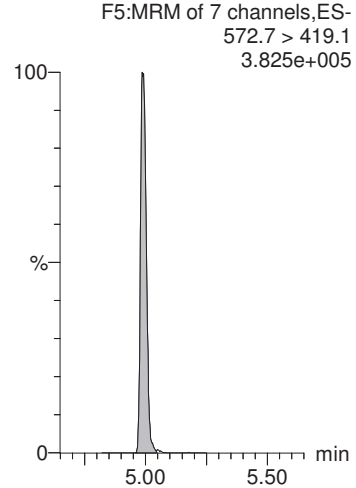

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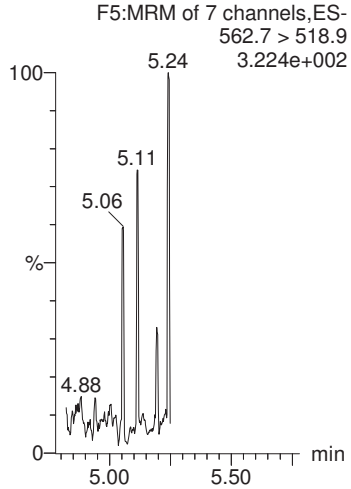
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-17.qld

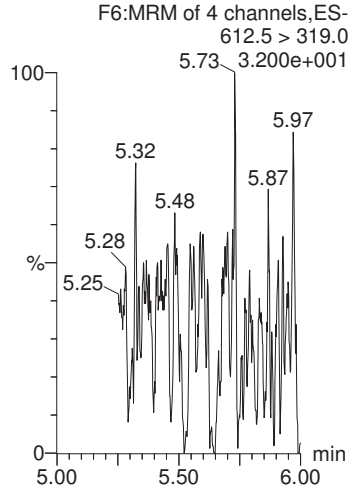
Last Altered: Wednesday, July 25, 2018 14:58:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:59:49 Pacific Daylight Time

Name: 180725G1_17, Date: 25-Jul-2018, Time: 11:40:03, ID: 1801824-18 CBD-1FB31-0718 0.25806, Description: CBD-1FB31-0718

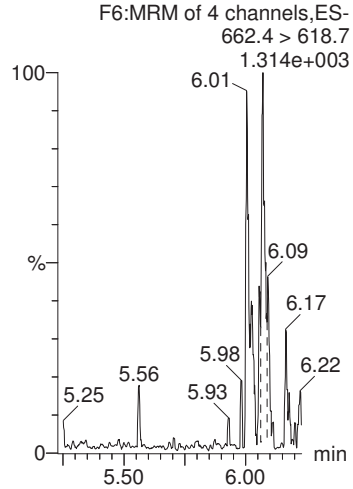
PFUnA



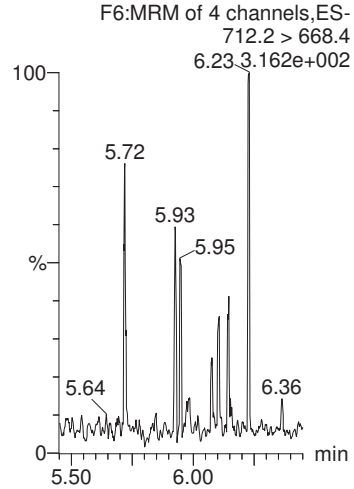
PFDoA



PFTrDA



PFTeDA



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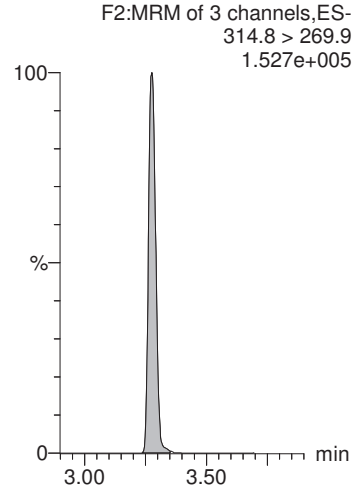

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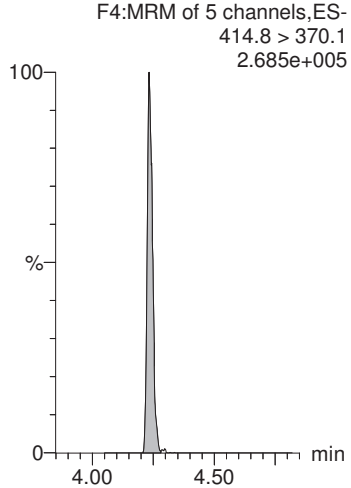

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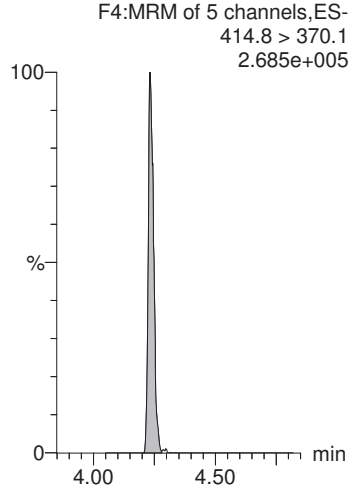

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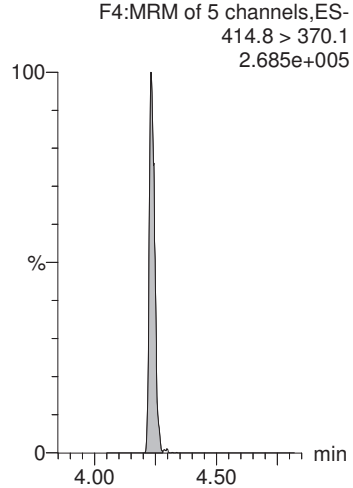

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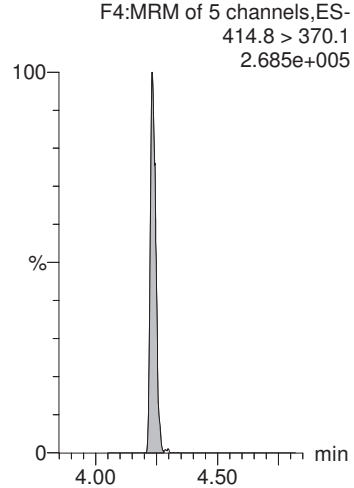

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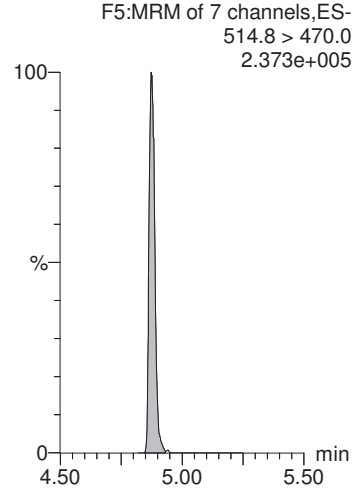

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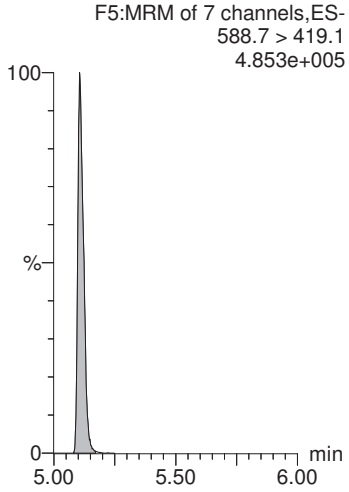
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-17.qld

Last Altered: Wednesday, July 25, 2018 14:58:59 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:59:49 Pacific Daylight Time

Name: 180725G1_17, Date: 25-Jul-2018, Time: 11:40:03, ID: 1801824-18 CBD-1FB31-0718 0.25806, Description: CBD-1FB31-0718

d5-N-EtFOSAA



CGH 7/25/2018

INJECTION INTERNAL STANDARD (IIS) AREAS,

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

ICAL

50-150%

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180724G5_1	Analyte	10			9398.72	0.00
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	10	4.23	10323.19	9398.72	109.84
3	IPA	180724G5_3	Analyte	10			9398.72	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	10	4.23	10257.62	9398.72	109.14
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	10	4.24	10258.98	9398.72	109.15
6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	10	4.23	9407.98	9398.72	100.10
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	10	4.23	9298.12	9398.72	98.93
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	10	4.23	9041.57	9398.72	96.20
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	10	4.23	9759.16	9398.72	103.83
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	10	4.23	9872.09	9398.72	105.04
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	10	4.23	9907.29	9398.72	105.41
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	10	4.22	10032.48	9398.72	106.74
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	10	4.23	8478.58	9398.72	90.21
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	10	4.23	10112.31	9398.72	107.59
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	10	4.23	9174.36	9398.72	97.61
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	10	4.23	8615.34	9398.72	91.67
17	IPA	180724G5_17	Analyte	10			9398.72	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	10	4.23	8767.78	9398.72	93.29
19	IPA	180724G5_19	Analyte	10			9398.72	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	10	4.23	10033.73	9398.72	106.76
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	10	4.23	8504.18	9398.72	90.48
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	10	4.23	8633.06	9398.72	91.85
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	10	4.23	10153.84	9398.72	108.03
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	10	4.23	8584.38	9398.72	91.34
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	10	4.23	8134.04	9398.72	86.54
26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	10	4.23	7882.73	9398.72	83.87
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	10	4.23	9438.67	9398.72	100.43
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	10	4.23	7891.85	9398.72	83.97

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29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	10	4.23	9640.14	9398.72	102.57
30	IPA	180724G5_30	Analyte	10			9398.72	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	10	4.23	9081.77	9398.72	96.63
32	IPA	180724G5_32	Analyte	10			9398.72	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	10	4.23	9649.48	9398.72	102.67
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	10	4.23	8433.16	9398.72	89.73
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	10	4.24	8604.73	9398.72	91.55
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	10	4.24	8700.81	9398.72	92.57
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	10	4.24	8745.54	9398.72	93.05
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	10	4.23	8907.67	9398.72	94.78
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	10	4.24	9934.63	9398.72	105.70
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	10	4.23	9669.89	9398.72	102.89
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	10	4.24	7546.33	9398.72	80.29
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	10	4.23	6913.52	9398.72	73.56
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	10	4.24	8476.48	9398.72	90.19
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	10	4.23	8135.87	9398.72	86.56
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	10	4.24	8412.71	9398.72	89.51
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	10	4.23	8628.43	9398.72	91.80
47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	10	4.23	8918.07	9398.72	94.89
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	10	4.23	8186.93	9398.72	87.11
49	IPA	180724G5_49	Analyte	10			9398.72	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	10	4.24	10382.09	9398.72	110.46
51	IPA	180724G5_51	Analyte	10			9398.72	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	10	4.23	7189.32	9398.72	76.49
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	10	4.23	7545.78	9398.72	80.29
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	10	4.23	8106.44	9398.72	86.25
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	10	4.24	8990.65	9398.72	95.66
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	10	4.23	8670.83	9398.72	92.26
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	10	4.24	9005.63	9398.72	95.82
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	10	4.23	7411.82	9398.72	78.86
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	10	4.24	8174.44	9398.72	86.97
60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	10	4.24	7285.70	9398.72	77.52
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	10	4.24	7386.50	9398.72	78.59
62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	10	4.24	8249.70	9398.72	87.77
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	10	4.24	7571.67	9398.72	80.56
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	10	4.24	7908.56	9398.72	84.15

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65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	10	4.24	8064.03	9398.72	85.80
66	IPA	180724G5_66	Analyte	10			9398.72	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	10	4.24	17381.94	9398.72	184.94
68	IPA	180724G5_68	Analyte	10				

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180724G5_1	Analyte	28.7			12778.71	0.00
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	28.7	4.64	15687.71	12778.71	122.76
3	IPA	180724G5_3	Analyte	28.7			12778.71	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	28.7	4.65	16302.08	12778.71	127.57
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	28.7	4.64	15290.43	12778.71	119.66
6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	28.7	4.64	13877.21	12778.71	108.60
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	28.7	4.64	14522.74	12778.71	113.65
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	28.7	4.64	14443.82	12778.71	113.03
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	28.7	4.64	15287.23	12778.71	119.63
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	28.7	4.64	14279.85	12778.71	111.75
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	28.7	4.64	15409.67	12778.71	120.59
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	28.7	4.64	15745.33	12778.71	123.22
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	28.7	4.64	15027.18	12778.71	117.60
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	28.7	4.64	15603.17	12778.71	122.10
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	28.7	4.64	13387.77	12778.71	104.77
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	28.7	4.64	13995.57	12778.71	109.52
17	IPA	180724G5_17	Analyte	28.7			12778.71	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	28.7	4.64	14234.62	12778.71	111.39
19	IPA	180724G5_19	Analyte	28.7			12778.71	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	28.7	4.64	16238.14	12778.71	127.07
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	28.7	4.64	13902.08	12778.71	108.79
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	28.7	4.64	13532.47	12778.71	105.90
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	28.7	4.64	14989.46	12778.71	117.30
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	28.7	4.64	12999.42	12778.71	101.73
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	28.7	4.64	12187.22	12778.71	95.37
26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	28.7	4.64	11833.61	12778.71	92.60
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	28.7	4.64	14382.81	12778.71	112.55
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	28.7	4.64	12066.89	12778.71	94.43

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29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	28.7	4.64	14341.27	12778.71	112.23
30	IPA	180724G5_30	Analyte	28.7			12778.71	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	28.7	4.64	13973.02	12778.71	109.35
32	IPA	180724G5_32	Analyte	28.7			12778.71	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	28.7	4.64	13774.40	12778.71	107.79
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	28.7	4.64	13082.45	12778.71	102.38
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	28.7	4.64	12907.83	12778.71	101.01
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	28.7	4.64	8869.32	12778.71	69.41
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	28.7	4.64	12321.30	12778.71	96.42
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	28.7	4.64	12892.98	12778.71	100.89
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	28.7	4.64	15309.54	12778.71	119.81
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	28.7	4.64	14419.64	12778.71	112.84
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	28.7	4.64	11781.31	12778.71	92.19
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	28.7	4.64	10956.26	12778.71	85.74
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	28.7	4.65	13404.65	12778.71	104.90
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	28.7	4.64	12718.10	12778.71	99.53
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	28.7	4.64	12001.34	12778.71	93.92
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	28.7	4.64	13491.70	12778.71	105.58
47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	28.7	4.64	12726.13	12778.71	99.59
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	28.7	4.64	11860.00	12778.71	92.81
49	IPA	180724G5_49	Analyte	28.7			12778.71	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	28.7	4.64	16243.02	12778.71	127.11
51	IPA	180724G5_51	Analyte	28.7			12778.71	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	28.7	4.64	10817.60	12778.71	84.65
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	28.7	4.64	11251.33	12778.71	88.05
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	28.7	4.64	11870.65	12778.71	92.89
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	28.7	4.65	12993.92	12778.71	101.68
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	28.7	4.64	12221.97	12778.71	95.64
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	28.7	4.64	13204.50	12778.71	103.33
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	28.7	4.64	10877.79	12778.71	85.12
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	28.7	4.65	12035.79	12778.71	94.19
60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	28.7	4.64	11112.91	12778.71	86.96
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	28.7	4.65	11349.46	12778.71	88.82
62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	28.7	4.65	12070.51	12778.71	94.46
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	28.7	4.65	11651.43	12778.71	91.18
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	28.7	4.65	12199.38	12778.71	95.47

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65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	28.7	4.65	10857.31	12778.71	84.96
66	IPA	180724G5_66	Analyte	28.7			12778.71	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	28.7	4.64	25778.41	12778.71	201.73
68	IPA	180724G5_68	Analyte	28.7			12778.71	0.00

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
1	IPA	180724G5_1	Analyte	40			15301.08	0.00
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	40	4.99	18042.322	15301.08	117.92
3	IPA	180724G5_3	Analyte	40			15301.08	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	40	4.99	17264.127	15301.08	112.83
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	40	4.99	18366.742	15301.08	120.04
6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	40	5	15950.657	15301.08	104.25
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	40	5	16379.999	15301.08	107.05
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	40	5	16313.731	15301.08	106.62
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	40	5	18480.123	15301.08	120.78
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	40	5	17975.762	15301.08	117.48
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	40	4.99	16559.109	15301.08	108.22
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	40	4.99	18129.771	15301.08	118.49
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	40	4.99	15948.076	15301.08	104.23
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	40	4.99	17979.271	15301.08	117.50
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	40	4.99	14725.226	15301.08	96.24
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	40	4.98	16048.774	15301.08	104.89
17	IPA	180724G5_17	Analyte	40			15301.08	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	40	4.98	15515.345	15301.08	101.40
19	IPA	180724G5_19	Analyte	40			15301.08	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	40	4.98	17927.822	15301.08	117.17
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	40	4.98	15707.397	15301.08	102.66
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	40	4.98	15719.48	15301.08	102.73
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	40	4.98	16403.014	15301.08	107.20
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	40	4.99	13391.546	15301.08	87.52
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	40	4.99	14547.751	15301.08	95.08

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26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	40	4.99	14141.108	15301.08	92.42
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	40	4.98	15818.246	15301.08	103.38
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	40	4.99	14806.352	15301.08	96.77
29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	40	4.99	15722.729	15301.08	102.76
30	IPA	180724G5_30	Analyte	40			15301.08	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	40	4.99	15154.809	15301.08	99.04
32	IPA	180724G5_32	Analyte	40			15301.08	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	40	4.99	16733.588	15301.08	109.36
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	40	4.99	15087.741	15301.08	98.61
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	40	5	15493.116	15301.08	101.26
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	40	5	14880.241	15301.08	97.25
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	40	4.99	14697.814	15301.08	96.06
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	40	4.99	14538.214	15301.08	95.01
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	40	4.99	15677.956	15301.08	102.46
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	40	4.99	16152.765	15301.08	105.57
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	40	4.99	13023.714	15301.08	85.12
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	40	4.99	12322.522	15301.08	80.53
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	40	4.99	14969.45	15301.08	97.83
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	40	5	14335.239	15301.08	93.69
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	40	5	14196.711	15301.08	92.78
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	40	4.99	14259.486	15301.08	93.19
47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	40	5	14732.716	15301.08	96.29
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	40	4.99	14267.029	15301.08	93.24
49	IPA	180724G5_49	Analyte	40			15301.08	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	40	4.99	17125.33	15301.08	111.92
51	IPA	180724G5_51	Analyte	40			15301.08	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	40	5	11884.854	15301.08	77.67
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	40	5	11808.018	15301.08	77.17
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	40	5	12396.335	15301.08	81.02
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	40	5	13350.072	15301.08	87.25
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	40	5	13376.659	15301.08	87.42
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	40	5	13841.768	15301.08	90.46
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	40	5	10849.671	15301.08	70.91
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	40	5	13239.34	15301.08	86.53
60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	40	5	11478.364	15301.08	75.02
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	40	5	11963.079	15301.08	78.18

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62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	40	5	12683.508	15301.08	82.89
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	40	5	11339.77	15301.08	74.11
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	40	5	12822.814	15301.08	83.80
65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	40	5	11566.2	15301.08	75.59
66	IPA	180724G5_66	Analyte	40			15301.08	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	40	5	28541.361	15301.08	186.53
68	IPA	180724G5_68	Analyte	40			15301.08	0.00

CCAL

Compound 18: 13C2-PFOA

ST180724G5-1 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	10	4.23	10323.19	10323.19	100.00
3	IPA	180724G5_3	Analyte	10			10323.19	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	10	4.23	10257.62	10323.19	99.36
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	10	4.24	10258.98	10323.19	99.38
6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	10	4.23	9407.98	10323.19	91.13
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	10	4.23	9298.12	10323.19	90.07
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	10	4.23	9041.57	10323.19	87.59
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	10	4.23	9759.16	10323.19	94.54
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	10	4.23	9872.09	10323.19	95.63
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	10	4.23	9907.29	10323.19	95.97
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	10	4.22	10032.48	10323.19	97.18
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	10	4.23	8478.58	10323.19	82.13
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	10	4.23	10112.31	10323.19	97.96
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	10	4.23	9174.36	10323.19	88.87
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	10	4.23	8615.34	10323.19	83.46
17	IPA	180724G5_17	Analyte	10			10323.19	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	10	4.23	8767.78	10323.19	84.93

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ST180724G5-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	10	4.23	8767.78	8767.78	100.00
19	IPA	180724G5_19	Analyte	10			8767.78	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	10	4.23	10033.73	8767.78	114.44
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	10	4.23	8504.18	8767.78	96.99
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	10	4.23	8633.06	8767.78	98.46
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	10	4.23	10153.84	8767.78	115.81
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	10	4.23	8584.38	8767.78	97.91
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	10	4.23	8134.04	8767.78	92.77
26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	10	4.23	7882.73	8767.78	89.91
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	10	4.23	9438.67	8767.78	107.65
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	10	4.23	7891.85	8767.78	90.01
29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	10	4.23	9640.14	8767.78	109.95
30	IPA	180724G5_30	Analyte	10			8767.78	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	10	4.23	9081.77	8767.78	103.58

ST180724G5-3 PFC CS3 537 18G1808

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	10	4.23	9081.77	9081.77	100.00
32	IPA	180724G5_32	Analyte	10			9081.77	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	10	4.23	9649.48	9081.77	106.25
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	10	4.23	8433.16	9081.77	92.86
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	10	4.24	8604.73	9081.77	94.75
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	10	4.24	8700.81	9081.77	95.81
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	10	4.24	8745.54	9081.77	96.30
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	10	4.23	8907.67	9081.77	98.08
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	10	4.24	9934.63	9081.77	109.39
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	10	4.23	9669.89	9081.77	106.48
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	10	4.24	7546.33	9081.77	83.09
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	10	4.23	6913.52	9081.77	76.13
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	10	4.24	8476.48	9081.77	93.34
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	10	4.23	8135.87	9081.77	89.58
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	10	4.24	8412.71	9081.77	92.63
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	10	4.23	8628.43	9081.77	95.01

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47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	10	4.23	8918.07	9081.77	98.20
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	10	4.23	8186.93	9081.77	90.15
49	IPA	180724G5_49	Analyte	10			9081.77	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	10	4.24	10382.09	9081.77	114.32

ST180724G5-4 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	10	4.24	10382.09	10382.09	100.00
51	IPA	180724G5_51	Analyte	10			10382.09	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	10	4.23	7189.32	10382.09	69.25
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	10	4.23	7545.78	10382.09	72.68
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	10	4.23	8106.44	10382.09	78.08
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	10	4.24	8990.65	10382.09	86.60
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	10	4.23	8670.83	10382.09	83.52
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	10	4.24	9005.63	10382.09	86.74
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	10	4.23	7411.82	10382.09	71.39
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	10	4.24	8174.44	10382.09	78.74
60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	10	4.24	7285.70	10382.09	70.18
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	10	4.24	7386.50	10382.09	71.15
62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	10	4.24	8249.70	10382.09	79.46
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	10	4.24	7571.67	10382.09	72.93
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	10	4.24	7908.56	10382.09	76.18
65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	10	4.24	8064.03	10382.09	77.67
66	IPA	180724G5_66	Analyte	10			10382.09	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	10	4.24	17381.94	10382.09	167.42

Compound 19: 13C4-PFOS

ST180724G5-1 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	28.7	4.64	15687.71	15687.71	100.00
3	IPA	180724G5_3	Analyte	28.7			15687.71	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	28.7	4.65	16302.08	15687.71	103.92
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	28.7	4.64	15290.43	15687.71	97.47

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6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	28.7	4.64	13877.21	15687.71	88.46
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	28.7	4.64	14522.74	15687.71	92.57
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	28.7	4.64	14443.82	15687.71	92.07
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	28.7	4.64	15287.23	15687.71	97.45
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	28.7	4.64	14279.85	15687.71	91.03
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	28.7	4.64	15409.67	15687.71	98.23
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	28.7	4.64	15745.33	15687.71	100.37
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	28.7	4.64	15027.18	15687.71	95.79
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	28.7	4.64	15603.17	15687.71	99.46
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	28.7	4.64	13387.77	15687.71	85.34
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	28.7	4.64	13995.57	15687.71	89.21
17	IPA	180724G5_17	Analyte	28.7			15687.71	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	28.7	4.64	14234.62	15687.71	90.74

ST180724G5-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	28.7	4.64	14234.62	14234.62	100.00
19	IPA	180724G5_19	Analyte	28.7			14234.62	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	28.7	4.64	16238.14	14234.62	114.08
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	28.7	4.64	13902.08	14234.62	97.66
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	28.7	4.64	13532.47	14234.62	95.07
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	28.7	4.64	14989.46	14234.62	105.30
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	28.7	4.64	12999.42	14234.62	91.32
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	28.7	4.64	12187.22	14234.62	85.62
26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	28.7	4.64	11833.61	14234.62	83.13
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	28.7	4.64	14382.81	14234.62	101.04
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	28.7	4.64	12066.89	14234.62	84.77
29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	28.7	4.64	14341.27	14234.62	100.75
30	IPA	180724G5_30	Analyte	28.7			14234.62	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	28.7	4.64	13973.02	14234.62	98.16

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ST180724G5-3 PFC CS3 537 18G1808

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	28.7	4.64	13973.02	13973.02	100.00
32	IPA	180724G5_32	Analyte	28.7			13973.02	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	28.7	4.64	13774.40	13973.02	98.58
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	28.7	4.64	13082.45	13973.02	93.63
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	28.7	4.64	12907.83	13973.02	92.38
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	28.7	4.64	8869.32	13973.02	63.47
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	28.7	4.64	12321.30	13973.02	88.18
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	28.7	4.64	12892.98	13973.02	92.27
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	28.7	4.64	15309.54	13973.02	109.57
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	28.7	4.64	14419.64	13973.02	103.20
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	28.7	4.64	11781.31	13973.02	84.31
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	28.7	4.64	10956.26	13973.02	78.41
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	28.7	4.65	13404.65	13973.02	95.93
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	28.7	4.64	12718.10	13973.02	91.02
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	28.7	4.64	12001.34	13973.02	85.89
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	28.7	4.64	13491.70	13973.02	96.56
47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	28.7	4.64	12726.13	13973.02	91.08
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	28.7	4.64	11860.00	13973.02	84.88
49	IPA	180724G5_49	Analyte	28.7			13973.02	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	28.7	4.64	16243.02	13973.02	116.25

ST180724G5-4 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	28.7	4.64	16243.02	16243.02	100.00
51	IPA	180724G5_51	Analyte	28.7			16243.02	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	28.7	4.64	10817.60	16243.02	66.60
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	28.7	4.64	11251.33	16243.02	69.27
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	28.7	4.64	11870.65	16243.02	73.08
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	28.7	4.65	12993.92	16243.02	80.00
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	28.7	4.64	12221.97	16243.02	75.24
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	28.7	4.64	13204.50	16243.02	81.29
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	28.7	4.64	10877.79	16243.02	66.97
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	28.7	4.65	12035.79	16243.02	74.10

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60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	28.7	4.64	11112.91	16243.02	68.42
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	28.7	4.65	11349.46	16243.02	69.87
62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	28.7	4.65	12070.51	16243.02	74.31
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	28.7	4.65	11651.43	16243.02	71.73
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	28.7	4.65	12199.38	16243.02	75.11
65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	28.7	4.65	10857.31	16243.02	66.84
66	IPA	180724G5_66	Analyte	28.7			16243.02	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	28.7	4.64	25778.41	16243.02	158.70

Compound 20: d3-N-MeFOSAA

ST180724G5-1 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180724G5-1 PFC CS-1 537 18G1804	180724G5_2	Analyte	40	4.99	18042.32	18042.32	100.00
3	IPA	180724G5_3	Analyte	40			18042.32	0.00
4	1801627-01 GWEF1807031130GSC 0.25965	180724G5_4	Analyte	40	4.99	17264.13	18042.32	95.69
5	1801628-01 GWNT1807031320GGA 0.25775	180724G5_5	Analyte	40	4.99	18366.74	18042.32	101.80
6	1801629-01 GWIN1807031345GGA 0.25402	180724G5_6	Analyte	40	5	15950.66	18042.32	88.41
7	1801630-01 GWIN1807031430GGA 0.25045	180724G5_7	Analyte	40	5	16380.00	18042.32	90.79
8	1801630-02 GWIN1807031445GGA 0.25487	180724G5_8	Analyte	40	5	16313.73	18042.32	90.42
9	1801630-03 GWIN1807031450GGA 0.25193	180724G5_9	Analyte	40	5	18480.12	18042.32	102.43
10	1801631-01 GWIN1807031530GGA 0.24962	180724G5_10	Analyte	40	5	17975.76	18042.32	99.63
11	1801631-02 GWIN1807031540GGA 0.25585	180724G5_11	Analyte	40	4.99	16559.11	18042.32	91.78
12	B8G0076-BLK1 LRB 0.25	180724G5_12	Analyte	40	4.99	18129.77	18042.32	100.48
13	B8G0076-BS1 LFB 0.25	180724G5_13	Analyte	40	4.99	15948.08	18042.32	88.39
14	B8G0076-BSD1 LFBD 0.25	180724G5_14	Analyte	40	4.99	17979.27	18042.32	99.65
15	1801601-01 GWIN1806280850GSC 0.2575	180724G5_15	Analyte	40	4.99	14725.23	18042.32	81.61
16	1801602-01 GWEF1806280910GSC 0.24188	180724G5_16	Analyte	40	4.98	16048.77	18042.32	88.95
17	IPA	180724G5_17	Analyte	40			18042.32	0.00
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	40	4.98	15515.35	18042.32	85.99

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ST180724G5-2 PFC CS1 537 18G1806

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
18	ST180724G5-2 PFC CS1 537 18G1806	180724G5_18	Analyte	40	4.98	15515.35	15515.35	100.00
19	IPA	180724G5_19	Analyte	40			15515.35	0.00
20	1801603-01 GWEF1806281015GSC 0.25521	180724G5_20	Analyte	40	4.98	17927.82	15515.35	115.55
21	1801604-01 GWIN1806281115GSC 0.25822	180724G5_21	Analyte	40	4.98	15707.40	15515.35	101.24
22	1801605-01 GWEF1806281400GSC 0.25836	180724G5_22	Analyte	40	4.98	15719.48	15515.35	101.32
23	1801606-01 GWNT1806290950GSC 0.26714	180724G5_23	Analyte	40	4.98	16403.01	15515.35	105.72
24	1801607-01 GWNT1806290920GSC 0.26578	180724G5_24	Analyte	40	4.99	13391.55	15515.35	86.31
25	1801608-01 GWNT1806290910GSC 0.26423	180724G5_25	Analyte	40	4.99	14547.75	15515.35	93.76
26	1801609-01 GWEF1806290830GSC 0.26395	180724G5_26	Analyte	40	4.99	14141.11	15515.35	91.14
27	1801611-01 GWNT1807020900GSC 0.25273	180724G5_27	Analyte	40	4.98	15818.25	15515.35	101.95
28	1801612-01 GWNT1807020930GSC 0.24092	180724G5_28	Analyte	40	4.99	14806.35	15515.35	95.43
29	1801613-01 GWNT1807021010GSC 0.25641	180724G5_29	Analyte	40	4.99	15722.73	15515.35	101.34
30	IPA	180724G5_30	Analyte	40			15515.35	0.00
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	40	4.99	15154.81	15515.35	97.68

ST180724G5-3 PFC CS3 537 18G1808

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
31	ST180724G5-3 PFC CS3 537 18G1808	180724G5_31	Analyte	40	4.99	15154.81	15154.81	100.00
32	IPA	180724G5_32	Analyte	40			15154.81	0.00
33	1801614-01 GWNT1807021130GSC 0.25607	180724G5_33	Analyte	40	4.99	16733.59	15154.81	110.42
34	1801614-02 GWNT1807021140GSC 0.25391	180724G5_34	Analyte	40	4.99	15087.74	15154.81	99.56
35	1801615-01 GWIN1807021148GSC 0.25985	180724G5_35	Analyte	40	5	15493.12	15154.81	102.23
36	1801616-01 GWIN1807021305GSC 0.26798	180724G5_36	Analyte	40	5	14880.24	15154.81	98.19
37	1801616-02 GWIN1807021330GSC 0.25751	180724G5_37	Analyte	40	4.99	14697.81	15154.81	96.98
38	1801616-03 GWNT1807021335GSC 0.23628	180724G5_38	Analyte	40	4.99	14538.21	15154.81	95.93
39	1801617-01 GWIN1807021440GSC 0.25789	180724G5_39	Analyte	40	4.99	15677.96	15154.81	103.45
40	1801618-01 GWIN1807021445GSC 0.25684	180724G5_40	Analyte	40	4.99	16152.77	15154.81	106.59
41	B8G0155-BLK1 LRB 0.25	180724G5_41	Analyte	40	4.99	13023.71	15154.81	85.94
42	B8G0155-BS1 LFB 0.25	180724G5_42	Analyte	40	4.99	12322.52	15154.81	81.31
43	B8G0155-MS1 LFSM 0.25277	180724G5_43	Analyte	40	4.99	14969.45	15154.81	98.78
44	B8G0155-MSD1 LFSMD 0.2493	180724G5_44	Analyte	40	5	14335.24	15154.81	94.59
45	1801824-01 CBD-1RW23-0718 0.23705	180724G5_45	Analyte	40	5	14196.71	15154.81	93.68
46	1801824-02 CBD-1FB23-0718 0.25791	180724G5_46	Analyte	40	4.99	14259.49	15154.81	94.09

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47	1801824-03 CBD-1RW24-0718 0.25084	180724G5_47	Analyte	40	5	14732.72	15154.81	97.21
48	1801824-04 CBD-1FB24-0718 0.25618	180724G5_48	Analyte	40	4.99	14267.03	15154.81	94.14
49	IPA	180724G5_49	Analyte	40			15154.81	0.00
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	40	4.99	17125.33	15154.81	113.00

ST180724G5-4 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
50	ST180724G5-4 PFC CS-1 537 18G1804	180724G5_50	Analyte	40	4.99	17125.33	17125.33	100.00
51	IPA	180724G5_51	Analyte	40			17125.33	0.00
52	1801824-05 CBD-1RW25-0718 0.24505	180724G5_52	Analyte	40	5	11884.854	17125.33	69.40
53	1801824-06 CBD-1FB25-0718 0.25439	180724G5_53	Analyte	40	5	11808.018	17125.33	68.95
54	1801824-07 CBD-1RW26-0718 0.25368	180724G5_54	Analyte	40	5	12396.335	17125.33	72.39
55	1801824-08 CBD-1FB26-0718 0.24525	180724G5_55	Analyte	40	5	13350.072	17125.33	77.96
56	1801824-09 CBD-1RW27-0718 0.25251	180724G5_56	Analyte	40	5	13376.659	17125.33	78.11
57	1801824-10 CBD-1FB27-0718 0.25608	180724G5_57	Analyte	40	5	13841.768	17125.33	80.83
58	1801824-11 CBD-1RW28-0718 0.25482	180724G5_58	Analyte	40	5	10849.671	17125.33	63.35
59	1801824-12 CBD-1FB28-0718 0.25788	180724G5_59	Analyte	40	5	13239.34	17125.33	77.31
60	1801824-13 CBD-1RW29-0718 0.25606	180724G5_60	Analyte	40	5	11478.364	17125.33	67.03
61	1801824-14 CBD-1FB29-0718 0.25267	180724G5_61	Analyte	40	5	11963.079	17125.33	69.86
62	1801824-15 CBD-1RW30-0718 0.25164	180724G5_62	Analyte	40	5	12683.508	17125.33	74.06
63	1801824-16 CBD-1FB30-0718 0.25136	180724G5_63	Analyte	40	5	11339.77	17125.33	66.22
64	1801824-17 CBD-1RW31-0718 0.25381	180724G5_64	Analyte	40	5	12822.814	17125.33	74.88
65	1801824-18 CBD-1FB31-0718 0.25806	180724G5_65	Analyte	40	5	11566.2	17125.33	67.54
66	IPA	180724G5_66	Analyte	40			17125.33	0.00
67	ST180724G5-5 PFC CS1 537 18G1806	180724G5_67	Analyte	40	5	28541.361	17125.33	166.66

AD FOR CGH7/26/2018

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-31.qld

Last Altered: Wednesday, July 25, 2018 15:12:48 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 15:13:15 Pacific Daylight Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_31, Date: 24-Jul-2018, Time: 19:36:09, ID: ST180724G5-3 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.6> 80.5	1.99e4	1.40e4	1.00		2.90	2.90	40.9	43.0	97.3
2	2 PFHxA	312.7 > 268.8	3.88e4	9.08e3	1.00		3.30	3.28	42.7	52.5	105.0
3	3 PFHpA	362.7 > 318.8	4.05e4	9.08e3	1.00		3.81	3.82	44.6	50.9	101.8
4	4 PFHxS	398.7 > 80.7	2.27e4	1.40e4	1.00		3.92	3.94	46.6	41.2	90.6
5	5 PFOA	412.8 > 369.0	3.19e4	9.08e3	1.00		4.24	4.23	35.1	48.1	96.3
6	6 PFNA	462.9 > 419.1	4.21e4	9.08e3	1.00		4.60	4.57	46.3	53.2	106.4
7	7 PFOS	498.8 >80.7	8.72e3	1.40e4	1.00		4.64	4.64	17.9	48.5	104.9
8	8 PFDA	512.8 > 469.0	4.06e4	9.08e3	1.00		4.88	4.88	44.7	51.3	102.6
9	9 N-MeFOSAA	569.7 > 419.0	2.57e4	1.52e4	1.00		5.00	4.99	67.7	58.6	117.1
10	10 N-EtFOSAA	583.6 >419.1	2.02e4	1.52e4	1.00		5.11	5.11	53.3	53.5	106.9
11	11 PFUnA	562.7 > 518.9	4.68e4	9.08e3	1.00		5.12	5.12	51.5	53.6	107.2
12	12 PFDoA	612.5 > 319.0	7.50e3	9.08e3	1.00		5.36	5.37	8.26	56.2	112.4
13	13 PFTrDA	662.4 > 618.7	4.30e4	9.08e3	1.00		5.57	5.57	47.3	52.5	105.0
14	14 PFTeDA	712.2>668.4	4.70e4	9.08e3	1.00		5.76	5.75	51.7	55.8	111.7
15	15 13C2-PFHxA	314.8 > 269.9	6.86e3	9.08e3	1.00	0.753	3.40	3.28	7.55	10.0	100.3
16	16 13C2-PFDA	514.8 > 470.0	9.53e3	9.08e3	1.00	1.023	4.83	4.88	10.5	10.3	102.6
17	17 d5-N-EtFOSAA	588.7> 419.1	1.91e4	1.52e4	1.00	1.264	4.99	5.11	50.5	39.9	99.8
18	18 13C2-PFOA	414.8 > 370.1	9.08e3	9.08e3	1.00	1.000	4.28	4.23	10.0	10.0	100.0
19	19 13C4-PFOS	502.8>80.7	1.40e4	1.40e4	1.00	1.000	4.71	4.64	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.1	1.52e4	1.52e4	1.00	1.000	5.04	4.99	40.0	40.0	100.0

CeH
7/25/18

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, July 25, 2018 10:43:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 11:34:06 Pacific Daylight Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_0722.mdb 23 Jul 2018 07:45:20
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

	#	Name	ID	Acq.Date	Acq.Time
1	1	180724G5_1	IPA	24-Jul-18	13:01:49
2	2	180724G5_2	ST180724G5-1 PFC CS-1 537 18G1804	24-Jul-18	13:13:54
3	3	180724G5_3	IPA	24-Jul-18	13:26:46
4	4	180724G5_4	1801627-01 GWEF1807031130GSC 0....	24-Jul-18	13:42:29
5	5	180724G5_5	1801628-01 GWNT1807031320GGA 0....	24-Jul-18	13:54:32
6	6	180724G5_6	1801629-01 GWIN1807031345GGA 0....	24-Jul-18	14:07:23
7	7	180724G5_7	1801630-01 GWIN1807031430GGA 0....	24-Jul-18	14:20:12
8	8	180724G5_8	1801630-02 GWIN1807031445GGA 0....	24-Jul-18	14:33:02
9	9	180724G5_9	1801630-03 GWIN1807031450GGA 0....	24-Jul-18	14:45:50
10	10	180724G5_10	1801631-01 GWIN1807031530GGA 0....	24-Jul-18	14:58:41
11	11	180724G5_11	1801631-02 GWIN1807031540GGA 0....	24-Jul-18	15:11:30
12	12	180724G5_12	B8G0076-BLK1 LRB 0.25	24-Jul-18	15:24:19
13	13	180724G5_13	B8G0076-BS1 LFB 0.25	24-Jul-18	15:46:16
14	14	180724G5_14	B8G0076-BSD1 LFBD 0.25	24-Jul-18	15:58:17
15	15	180724G5_15	1801601-01 GWIN1806280850GSC 0....	24-Jul-18	16:11:05
16	16	180724G5_16	1801602-01 GWEF1806280910GSC 0....	24-Jul-18	16:23:55
17	17	180724G5_17	IPA	24-Jul-18	16:36:44
18	18	180724G5_18	ST180724G5-2 PFC CS1 537 18G1806	24-Jul-18	16:49:34
19	19	180724G5_19	IPA	24-Jul-18	17:02:23
20	20	180724G5_20	1801603-01 GWEF1806281015GSC 0....	24-Jul-18	17:15:11
21	21	180724G5_21	1801604-01 GWIN1806281115GSC 0.2...	24-Jul-18	17:28:00
22	22	180724G5_22	1801605-01 GWEF1806281400GSC 0....	24-Jul-18	17:40:49
23	23	180724G5_23	1801606-01 GWNT1806290950GSC 0....	24-Jul-18	17:53:39
24	24	180724G5_24	1801607-01 GWNT1806290920GSC 0....	24-Jul-18	18:06:24
25	25	180724G5_25	1801608-01 GWNT1806290910GSC 0....	24-Jul-18	18:19:14
26	26	180724G5_26	1801609-01 GWEF1806290830GSC 0....	24-Jul-18	18:32:04
27	27	180724G5_27	1801611-01 GWNT1807020900GSC 0....	24-Jul-18	18:44:53
28	28	180724G5_28	1801612-01 GWNT1807020930GSC 0....	24-Jul-18	18:57:41
29	29	180724G5_29	1801613-01 GWNT1807021010GSC 0....	24-Jul-18	19:10:31
30	30	180724G5_30	IPA	24-Jul-18	19:23:20
31	31	180724G5_31	ST180724G5-3 PFC CS3 537 18G1808	24-Jul-18	19:36:09
32	32	180724G5_32	IPA	24-Jul-18	19:48:58

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-31.qld

Last Altered: Wednesday, July 25, 2018 15:12:48 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 15:13:15 Pacific Daylight Time

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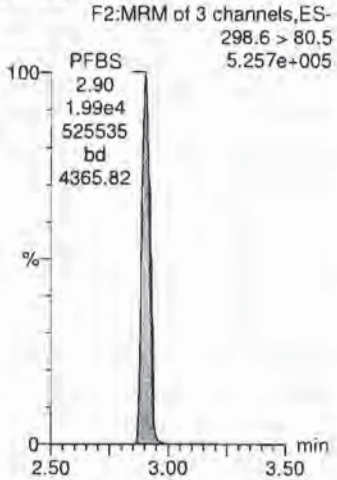
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_31, Date: 24-Jul-2018, Time: 19:36:09, ID: ST180724G5-3 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

PFBS



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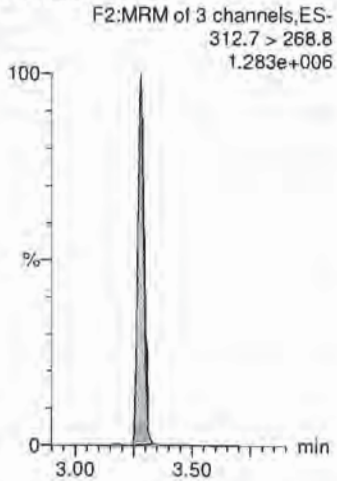

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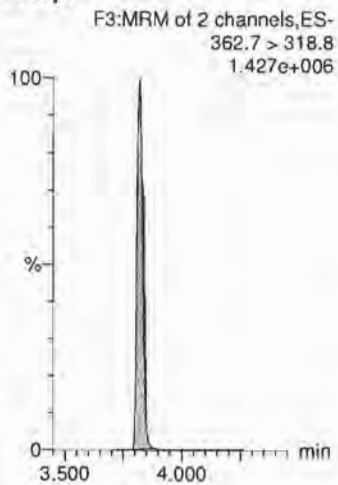

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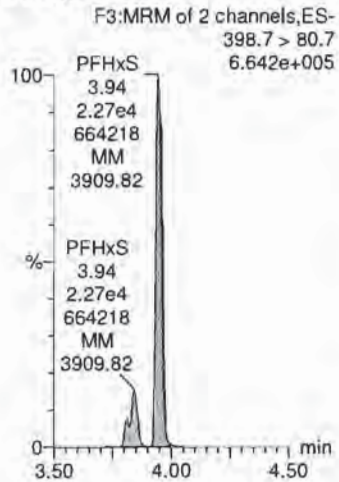

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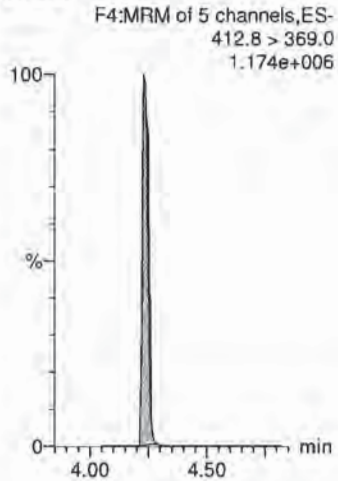

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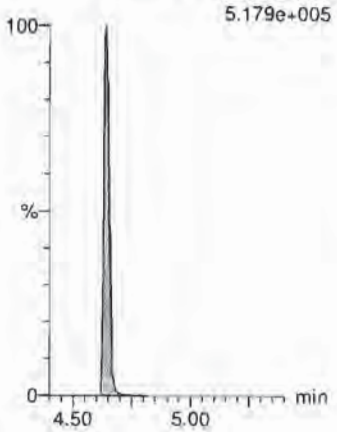

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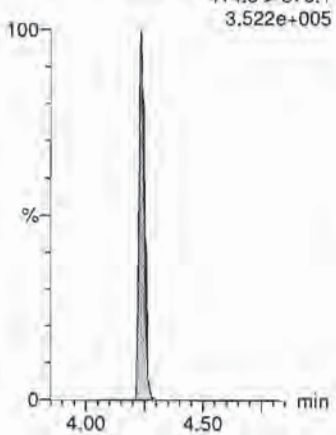

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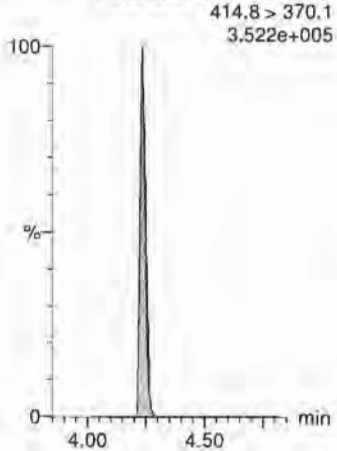

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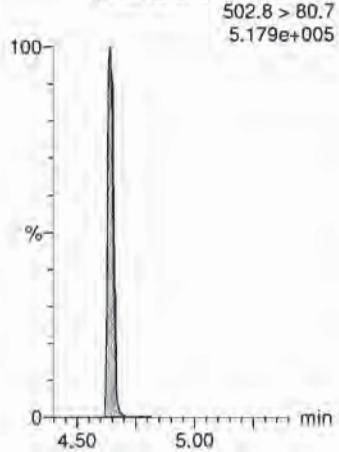

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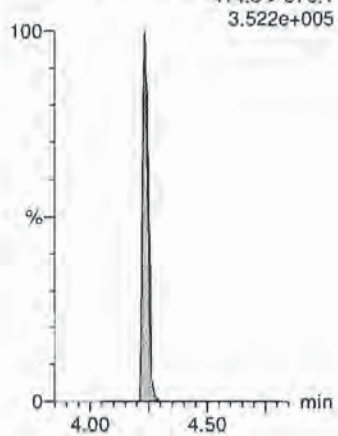
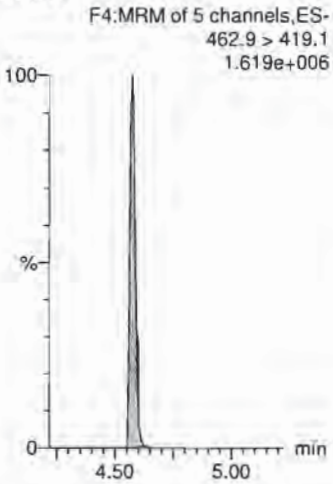


Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-31.qld

Last Altered: Wednesday, July 25, 2018 15:12:48 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 15:13:15 Pacific Daylight Time

Name: 180724G5_31, Date: 24-Jul-2018, Time: 19:36:09, ID: ST180724G5-3 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

PFNA



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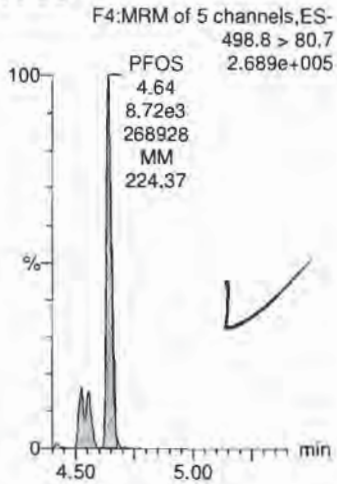
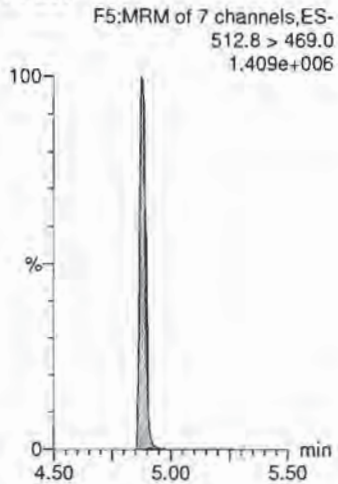


PFDA



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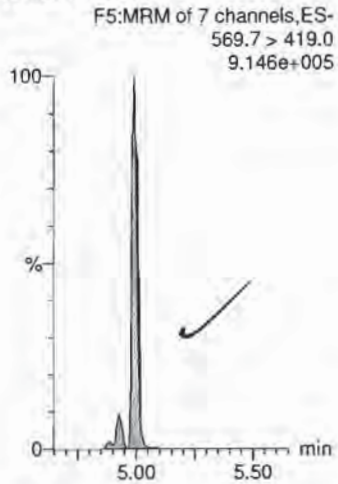

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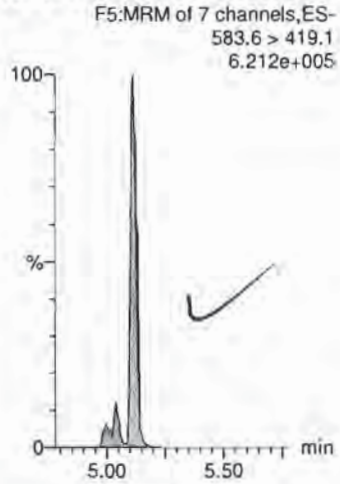

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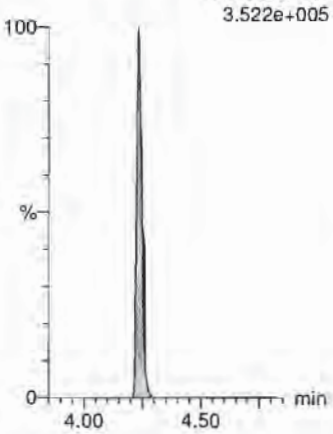

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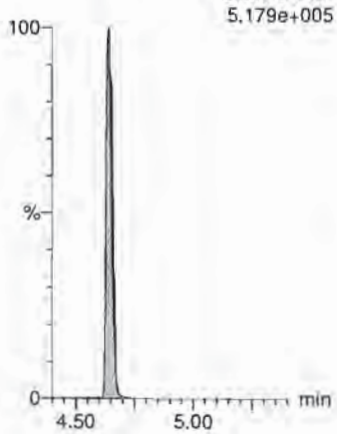

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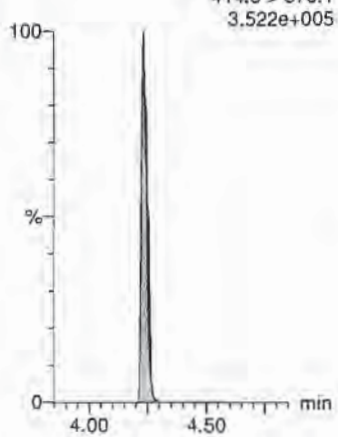

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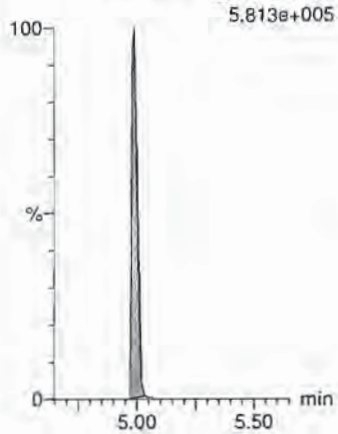

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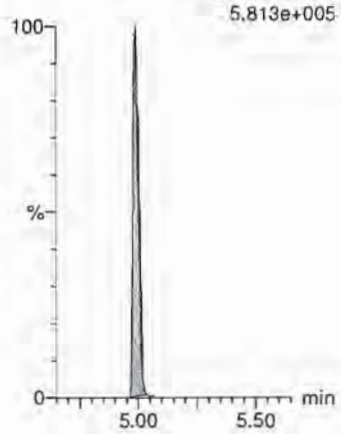

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Printed: Wednesday, July 25, 2018 15:13:15 Pacific Daylight Time

Name: 180724G5_31, Date: 24-Jul-2018, Time: 19:36:09, ID: ST180724G5-3 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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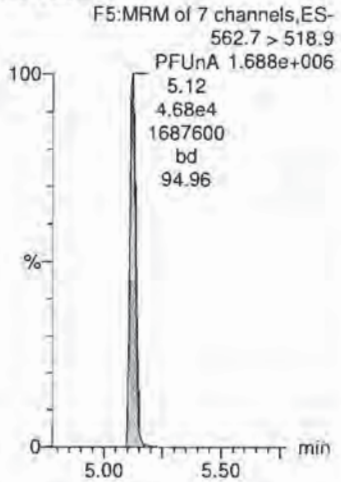

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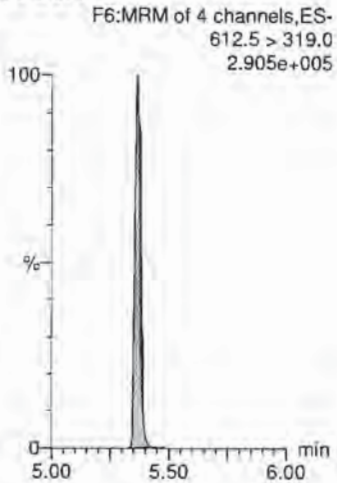

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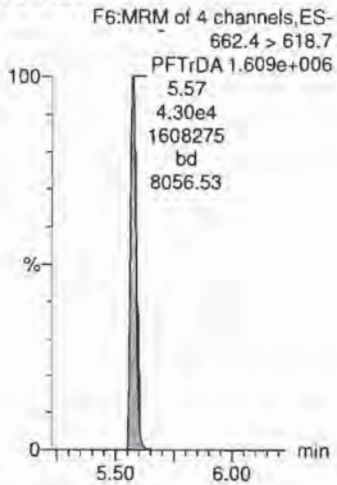

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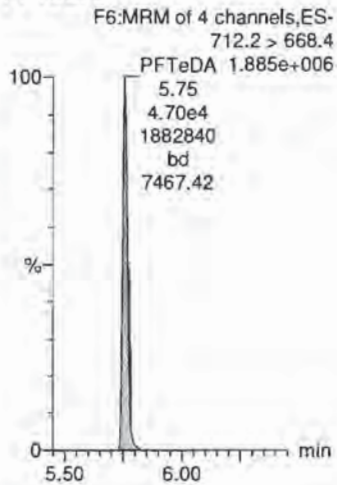

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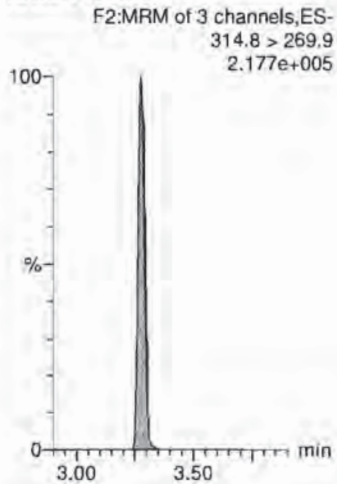

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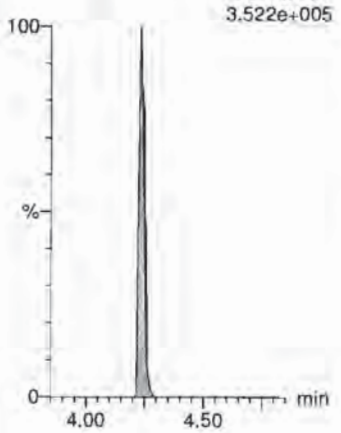

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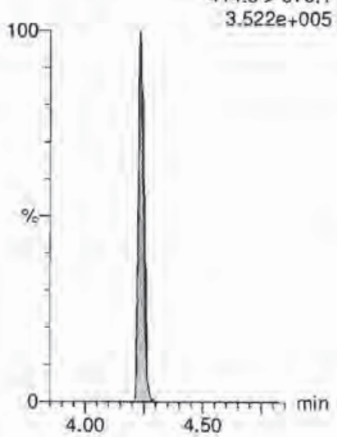

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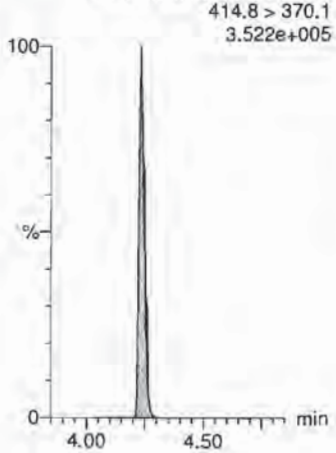

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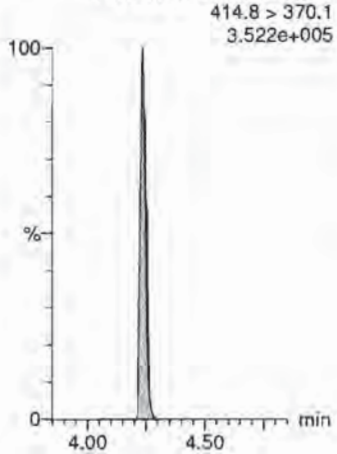

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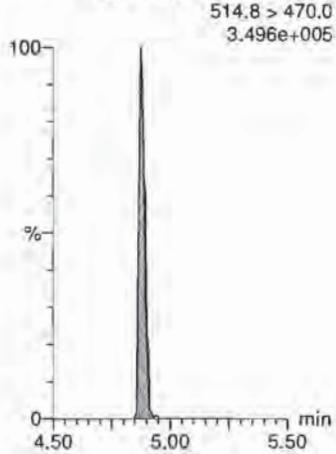

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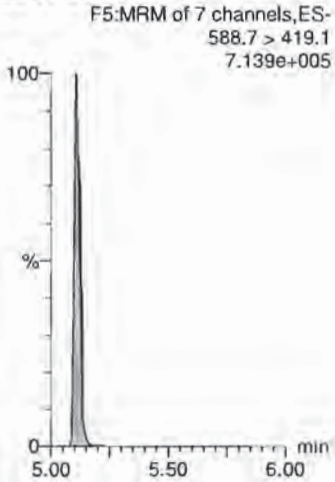
Printed: Wednesday, July 25, 2018 15:13:15 Pacific Daylight Time

Name: 180724G5_31, Date: 24-Jul-2018, Time: 19:36:09, ID: ST180724G5-3 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

d5-N-EtFOSAA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-50.qld

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Printed: Wednesday, July 25, 2018 10:42:07 Pacific Daylight Time

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_50, Date: 24-Jul-2018, Time: 23:39:48, ID: ST180724G5-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

MJT 7/25/18

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.6> 80.5	8.56e2	1.62e4	1.00		2.90	2.90	1.51	1.59	89.3
2	2 PFHxA	312.7 > 268.8	1.68e3	1.04e4	1.00		3.30	3.28	1.61	1.98	99.2
3	3 PFHpA	362.7 > 318.8	1.82e3	1.04e4	1.00		3.81	3.82	1.76	2.00	100.2
4	4 PFHxS	398.7 > 80.7	9.93e2	1.62e4	1.00		3.92	3.94	1.76	1.55	85.4
5	5 PFOA	412.8 > 369.0	1.54e3	1.04e4	1.00		4.24	4.24	1.48	2.03	101.7
6	6 PFNA	462.9 > 419.1	1.66e3	1.04e4	1.00		4.60	4.58	1.59	1.83	91.5
7	7 PFOS	498.8 >80.7	3.84e2	1.62e4	1.00		4.64	4.65	0.679	1.84	98.8
8	8 PFDA	512.8 > 469.0	1.73e3	1.04e4	1.00		4.88	4.87	1.67	1.92	95.9
9	9 N-MeFOSAA	569.7 > 419.0	1.03e3	1.71e4	1.00		5.00	5.01	2.41	2.08	104.1
10	10 N-EtFOSAA	583.6 >419.1	8.49e2	1.71e4	1.00		5.11	5.11	1.98	1.99	99.4
11	11 PFUnA	562.7 > 518.9	2.11e3	1.04e4	1.00		5.12	5.12	2.03	2.11	105.7
12	12 PFDoA	612.5 > 319.0	3.31e2	1.04e4	1.00		5.36	5.36	0.319	2.17	108.6
13	13 PFTrDA	662.4 > 618.7	1.92e3	1.04e4	1.00		5.58	5.58	1.85	2.05	102.4
14	14 PFTeDA	712.2>668.4	2.13e3	1.04e4	1.00		5.76	5.76	2.05	2.22	110.8
15	15 13C2-PFHxA	314.8 > 269.9	7.94e3	1.04e4	1.00	0.753	3.40	3.28	7.65	10.2	101.6
16	16 13C2-PFDA	514.8 > 470.0	1.12e4	1.04e4	1.00	1.023	4.83	4.87	10.8	10.5	105.4
17	17 d5-N-EtFOSAA	588.7> 419.1	2.08e4	1.71e4	1.00	1.264	4.99	5.11	48.6	38.4	96.1
18	18 13C2-PFOA	414.8 > 370.1	1.04e4	1.04e4	1.00	1.000	4.28	4.24	10.0	10.0	100.0
19	19 13C4-PFOS	502.8>80.7	1.62e4	1.62e4	1.00	1.000	4.71	4.64	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.1	1.71e4	1.71e4	1.00	1.000	5.04	4.99	40.0	40.0	100.0

7/25/18

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, July 25, 2018 10:43:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 11:34:06 Pacific Daylight Time

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Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

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1	1	180724G5_1	IPA	24-Jul-18	13:01:49
2	2	180724G5_2	ST180724G5-1 PFC CS-1 537 18G1804	24-Jul-18	13:13:54
3	3	180724G5_3	IPA	24-Jul-18	13:26:46
4	4	180724G5_4	1801627-01 GWEF1807031130GSC 0....	24-Jul-18	13:42:29
5	5	180724G5_5	1801628-01 GWNT1807031320GGA 0....	24-Jul-18	13:54:32
6	6	180724G5_6	1801629-01 GWIN1807031345GGA 0....	24-Jul-18	14:07:23
7	7	180724G5_7	1801630-01 GWIN1807031430GGA 0....	24-Jul-18	14:20:12
8	8	180724G5_8	1801630-02 GWIN1807031445GGA 0....	24-Jul-18	14:33:02
9	9	180724G5_9	1801630-03 GWIN1807031450GGA 0....	24-Jul-18	14:45:50
10	10	180724G5_10	1801631-01 GWIN1807031530GGA 0....	24-Jul-18	14:58:41
11	11	180724G5_11	1801631-02 GWIN1807031540GGA 0....	24-Jul-18	15:11:30
12	12	180724G5_12	B8G0076-BLK1 LRB 0.25	24-Jul-18	15:24:19
13	13	180724G5_13	B8G0076-BS1 LFB 0.25	24-Jul-18	15:46:16
14	14	180724G5_14	B8G0076-BSD1 LFBD 0.25	24-Jul-18	15:58:17
15	15	180724G5_15	1801601-01 GWIN1806280850GSC 0....	24-Jul-18	16:11:05
16	16	180724G5_16	1801602-01 GWEF1806280910GSC 0....	24-Jul-18	16:23:55
17	17	180724G5_17	IPA	24-Jul-18	16:36:44
18	18	180724G5_18	ST180724G5-2 PFC CS1 537 18G1806	24-Jul-18	16:49:34
19	19	180724G5_19	IPA	24-Jul-18	17:02:23
20	20	180724G5_20	1801603-01 GWEF1806281015GSC 0....	24-Jul-18	17:15:11
21	21	180724G5_21	1801604-01 GWIN1806281115GSC 0.2...	24-Jul-18	17:28:00
22	22	180724G5_22	1801605-01 GWEF1806281400GSC 0....	24-Jul-18	17:40:49
23	23	180724G5_23	1801606-01 GWNT1806290950GSC 0....	24-Jul-18	17:53:39
24	24	180724G5_24	1801607-01 GWNT1806290920GSC 0....	24-Jul-18	18:06:24
25	25	180724G5_25	1801608-01 GWNT1806290910GSC 0....	24-Jul-18	18:19:14
26	26	180724G5_26	1801609-01 GWEF1806290830GSC 0....	24-Jul-18	18:32:04
27	27	180724G5_27	1801611-01 GWNT1807020900GSC 0....	24-Jul-18	18:44:53
28	28	180724G5_28	1801612-01 GWNT1807020930GSC 0....	24-Jul-18	18:57:41
29	29	180724G5_29	1801613-01 GWNT1807021010GSC 0....	24-Jul-18	19:10:31
30	30	180724G5_30	IPA	24-Jul-18	19:23:20
31	31	180724G5_31	ST180724G5-3 PFC CS3 537 18G1808	24-Jul-18	19:36:09
32	32	180724G5_32	IPA	24-Jul-18	19:48:58

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, July 25, 2018 10:43:41 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 11:34:06 Pacific Daylight Time

Compound name: PFBS

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35	35	180724G5_35	1801615-01 GWIN1807021148GSC 0.2...	24-Jul-18	20:27:30
36	36	180724G5_36	1801616-01 GWIN1807021305GSC 0....	24-Jul-18	20:40:19
37	37	180724G5_37	1801616-02 GWIN1807021330GSC 0....	24-Jul-18	20:53:09
38	38	180724G5_38	1801616-03 GWNT1807021335GSC 0....	24-Jul-18	21:05:59
39	39	180724G5_39	1801617-01 GWIN1807021440GSC 0....	24-Jul-18	21:18:48
40	40	180724G5_40	1801618-01 GWIN1807021445GSC 0....	24-Jul-18	21:31:36
41	41	180724G5_41	B8G0155-BLK1 LRB 0.25	24-Jul-18	21:44:26
42	42	180724G5_42	B8G0155-BS1 LFB 0.25	24-Jul-18	21:57:15
43	43	180724G5_43	B8G0155-MS1 LFSM 0.25277	24-Jul-18	22:10:01
44	44	180724G5_44	B8G0155-MSD1 LFSMD 0.2493	24-Jul-18	22:22:50
45	45	180724G5_45	1801824-01 CBD-1RW23-0718 0.23705	24-Jul-18	22:35:40
46	46	180724G5_46	1801824-02 CBD-1FB23-0718 0.25791	24-Jul-18	22:48:29
47	47	180724G5_47	1801824-03 CBD-1RW24-0718 0.25084	24-Jul-18	23:01:20
48	48	180724G5_48	1801824-04 CBD-1FB24-0718 0.25618	24-Jul-18	23:14:08
49	49	180724G5_49	IPA	24-Jul-18	23:26:58
50	50	180724G5_50	ST180724G5-4 PFC CS-1 537 18G1804	24-Jul-18	23:39:48
51	51	180724G5_51	IPA	24-Jul-18	23:52:34
52	52	180724G5_52	1801824-05 CBD-1RW25-0718 0.24505	25-Jul-18	00:05:25
53	53	180724G5_53	1801824-06 CBD-1FB25-0718 0.25439	25-Jul-18	00:18:13
54	54	180724G5_54	1801824-07 CBD-1RW26-0718 0.25368	25-Jul-18	00:30:59
55	55	180724G5_55	1801824-08 CBD-1FB26-0718 0.24525	25-Jul-18	00:43:48
56	56	180724G5_56	1801824-09 CBD-1RW27-0718 0.25251	25-Jul-18	00:56:38
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58	58	180724G5_58	1801824-11 CBD-1RW28-0718 0.25482	25-Jul-18	01:22:16
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60	60	180724G5_60	1801824-13 CBD-1RW29-0718 0.25606	25-Jul-18	01:47:54
61	61	180724G5_61	1801824-14 CBD-1FB29-0718 0.25267	25-Jul-18	02:00:43
62	62	180724G5_62	1801824-15 CBD-1RW30-0718 0.25164	25-Jul-18	02:13:32
63	63	180724G5_63	1801824-16 CBD-1FB30-0718 0.25136	25-Jul-18	02:26:22
64	64	180724G5_64	1801824-17 CBD-1RW31-0718 0.25381	25-Jul-18	02:39:11
65	65	180724G5_65	1801824-18 CBD-1FB31-0718 0.25806	25-Jul-18	02:52:01
66	66	180724G5_66	IPA	25-Jul-18	03:04:46
67	67	180724G5_67	ST180724G5-5 PFC CS1 537 18G1806	25-Jul-18	03:17:39
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Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-50.qld

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Printed: Wednesday, July 25, 2018 10:42:07 Pacific Daylight Time

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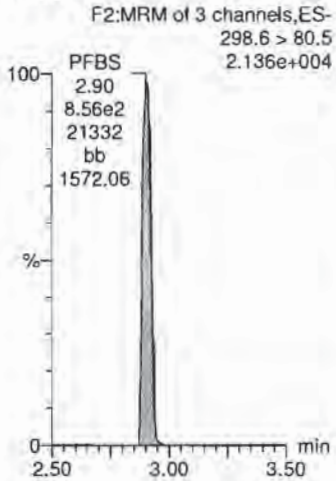
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180724G5_50, Date: 24-Jul-2018, Time: 23:39:48, ID: ST180724G5-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

PFBS



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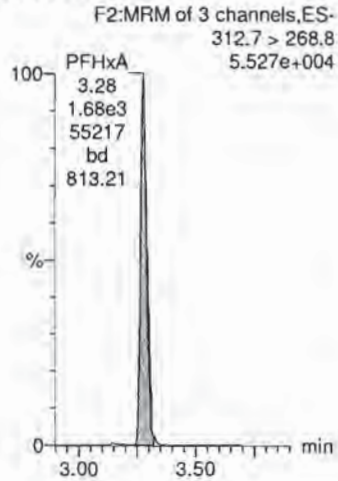

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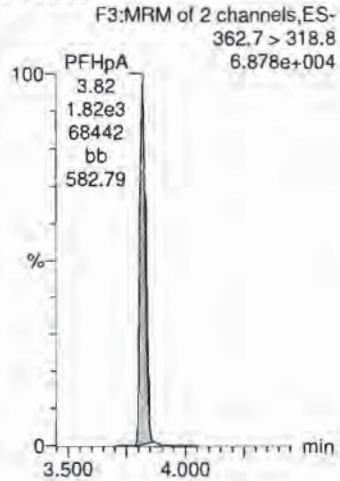

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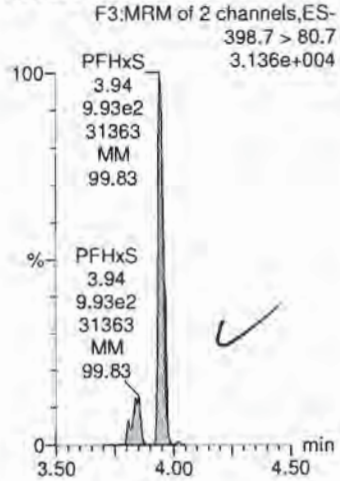
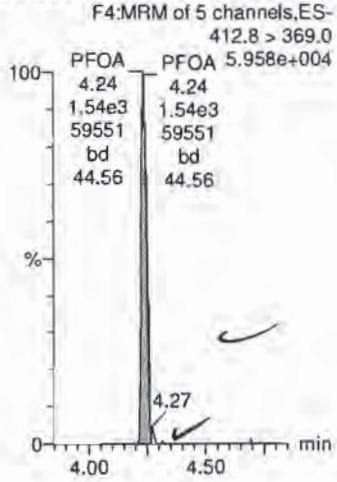
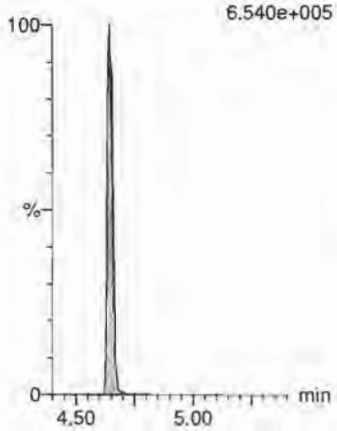


PFOA



13C4-PFOS



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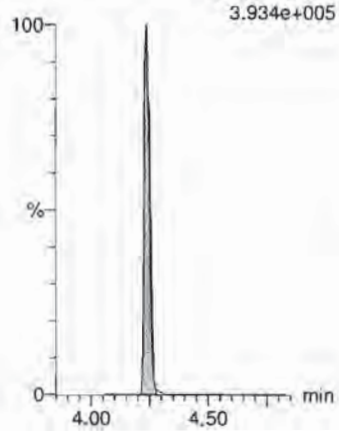

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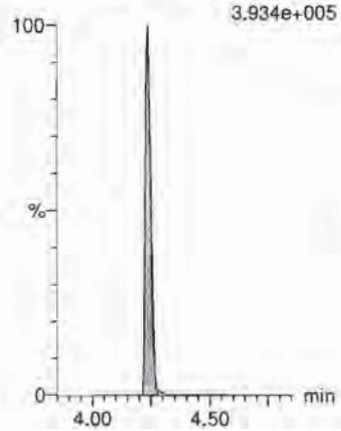

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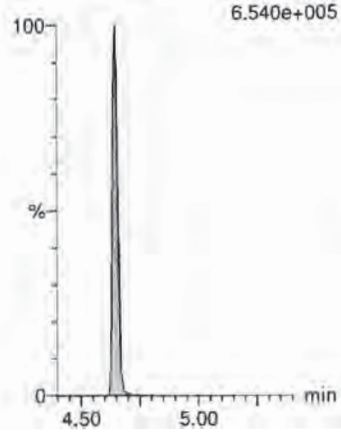

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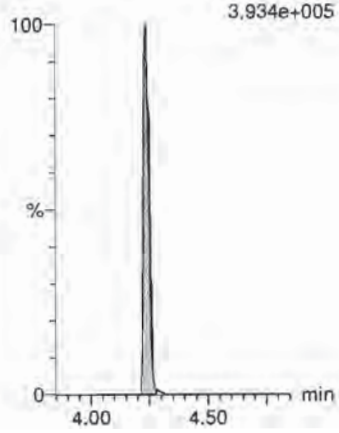

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180724G5\180724G5-50.qld

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Printed: Wednesday, July 25, 2018 10:42:07 Pacific Daylight Time

Name: 180724G5_50, Date: 24-Jul-2018, Time: 23:39:48, ID: ST180724G5-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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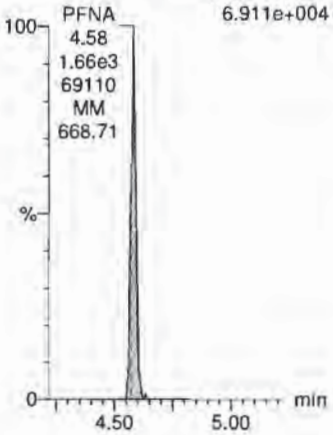

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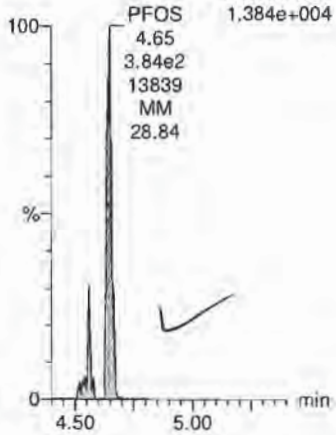

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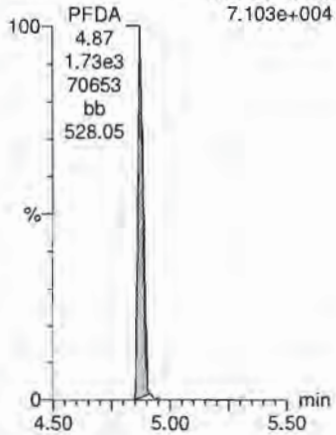

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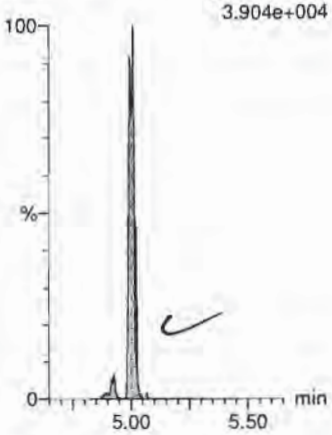

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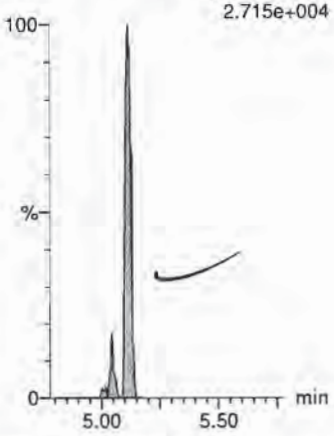

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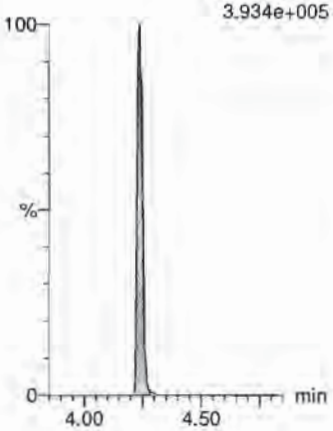

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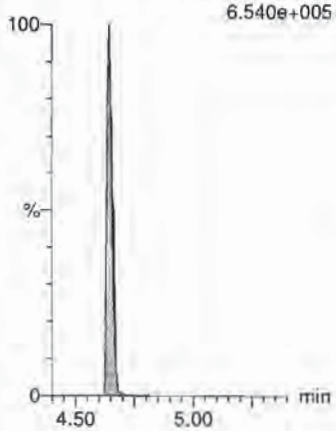

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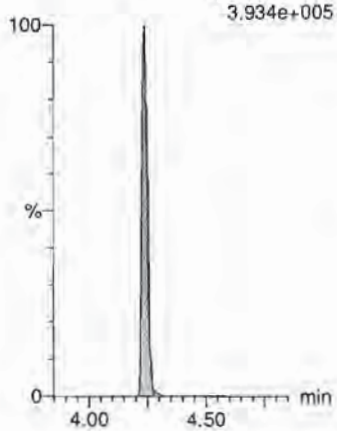

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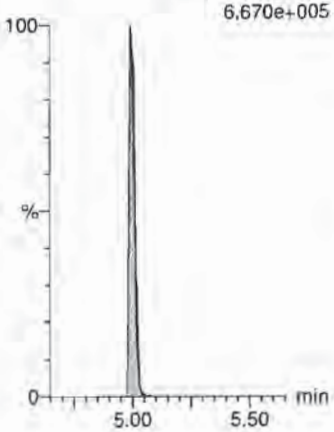

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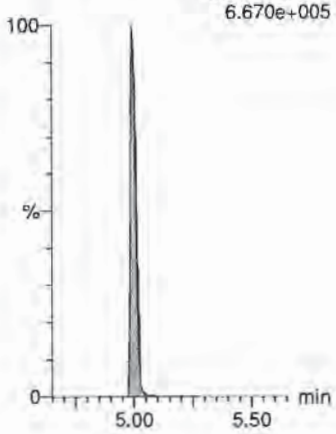

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Last Altered: Wednesday, July 25, 2018 07:24:33 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 10:42:07 Pacific Daylight Time

Name: 180724G5_50, Date: 24-Jul-2018, Time: 23:39:48, ID: ST180724G5-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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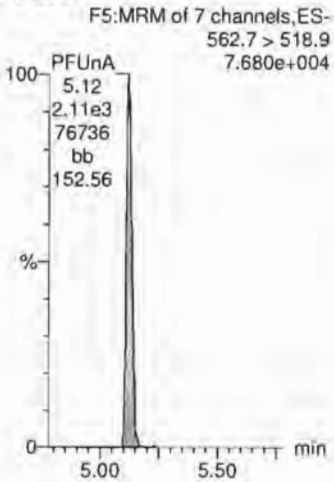

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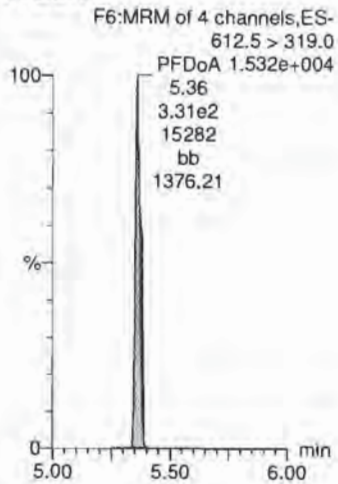

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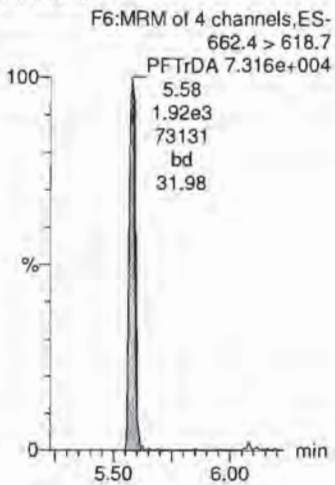

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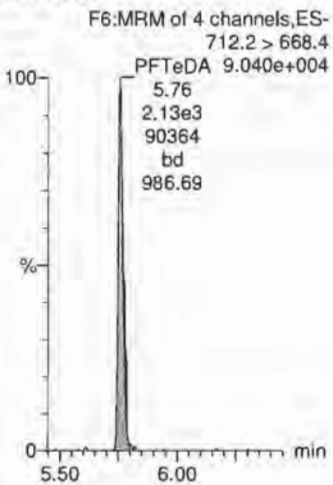

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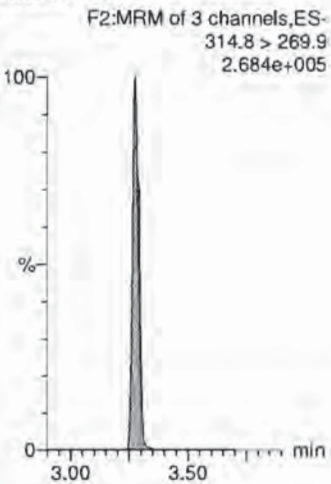

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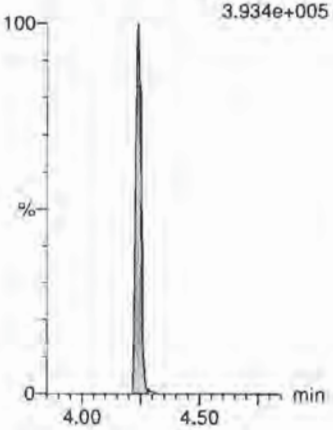

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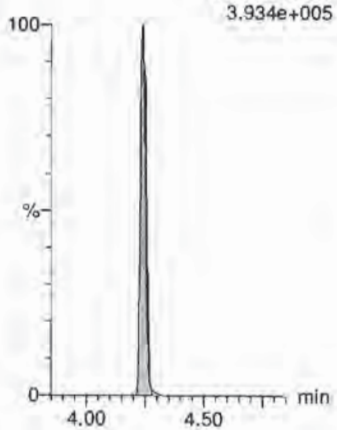

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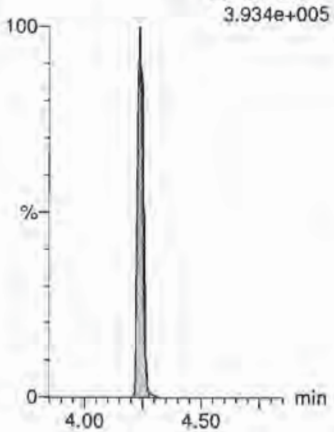

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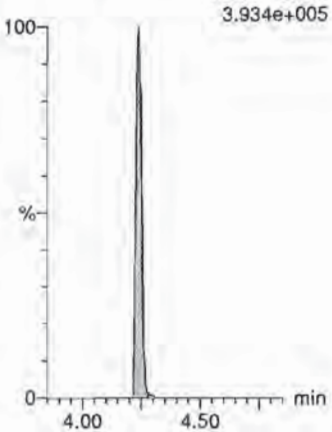

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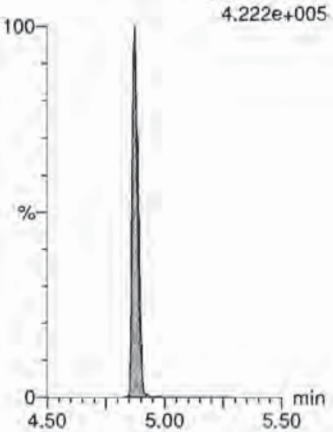

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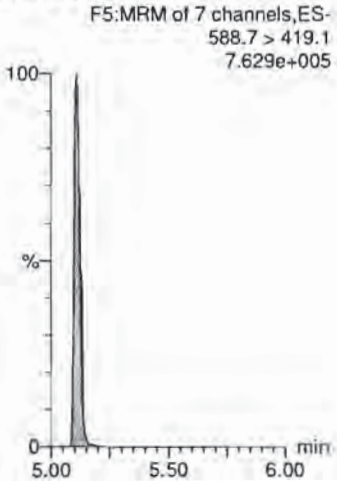
Printed: Wednesday, July 25, 2018 10:42:07 Pacific Daylight Time

Name: 180724G5_50, Date: 24-Jul-2018, Time: 23:39:48, ID: ST180724G5-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

d5-N-EtFOSAA



ICAL

50-150%

Compound 18: 13C2-PFOA

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1	IPA	180725G1_1	Analyte	10			9398.72	0.00
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	10	4.24	6693.43	9398.72	71.22
3	IPA	180725G1_3	Analyte	10			9398.72	0.00
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	10	4.24	6200.45	9398.72	65.97
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	10	4.24	6160.89	9398.72	65.55
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	10	4.24	5895.82	9398.72	62.73
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	10	4.23	6738.82	9398.72	71.70
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	10	4.23	6129.03	9398.72	65.21
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	10	4.24	7670.96	9398.72	81.62
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	10	4.23	6724.71	9398.72	71.55
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	10	4.23	6780.80	9398.72	72.15
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	10	4.23	6808.51	9398.72	72.44
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	10	4.24	6398.88	9398.72	68.08
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	10	4.23	6639.73	9398.72	70.65
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	10	4.24	7073.85	9398.72	75.26
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	10	4.23	6395.60	9398.72	68.05
17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	10	4.23	6859.30	9398.72	72.98
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	10	4.24	6727.08	9398.72	71.57
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	10	4.24	6125.34	9398.72	65.17
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	10	4.23	6066.55	9398.72	64.55
24	1801716-01 Milk 0.005	180725G1_24	Analyte	10	4.24	7443.78	9398.72	79.20
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	10	4.23	7876.84	9398.72	83.81
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	10	4.23	7253.43	9398.72	77.17
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	10	4.24	7907.98	9398.72	84.14
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	10	4.24	7228.70	9398.72	76.91
29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	10	4.23	6729.46	9398.72	71.60
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	10	4.23	7493.73	9398.72	79.73
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	10	4.24	7117.90	9398.72	75.73

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32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	10	4.23	6840.02	9398.72	72.78
33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	10	4.23	6445.07	9398.72	68.57
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	10	4.24	6901.98	9398.72	73.44
35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	10	4.24	7567.20	9398.72	80.51
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	10	4.23	7512.02	9398.72	79.93
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	10	4.23	6874.07	9398.72	73.14
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	10	4.23	6190.31	9398.72	65.86
41	1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	10	4.23	6334.54	9398.72	67.40
42	1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	10	4.24	6770.11	9398.72	72.03
43	1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	10	4.24	7490.55	9398.72	79.70
44	1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	10	4.24	6474.07	9398.72	68.88
45	1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	10	4.24	8177.18	9398.72	87.00
46	1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	10	4.24	6970.43	9398.72	74.16
47	1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	10	4.24	6473.52	9398.72	68.88
48	1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	10	4.24	8055.13	9398.72	85.70
49	1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	10	4.24	7612.72	9398.72	81.00
50	1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	10	4.24	6749.73	9398.72	71.82
51	1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	10	4.24	8215.91	9398.72	87.42
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	10	4.24	7397.57	9398.72	78.71
55	1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	10	4.24	6901.97	9398.72	73.44
56	B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	10	4.23	6536.00	9398.72	69.54
57	B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	10	4.24	7222.33	9398.72	76.84
58	B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	10	4.24	6995.15	9398.72	74.43
59	1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	10	4.23	6633.46	9398.72	70.58
60	1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	10	4.23	7500.12	9398.72	79.80
61	1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	10	4.24	7362.24	9398.72	78.33
62	1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	10	4.24	7795.44	9398.72	82.94
63	1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	10	4.24	6993.06	9398.72	74.40
64	1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	10	4.24	7395.27	9398.72	78.68
65	1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	10	4.24	7362.24	9398.72	78.33
66	1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	10	4.24	6548.23	9398.72	69.67
67	1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	10	4.24	7133.78	9398.72	75.90
68	1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	10	4.24	7114.54	9398.72	75.70
69	1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	10	4.24	6517.56	9398.72	69.35
70	1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	10	4.24	8010.98	9398.72	85.23
71	1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	10	4.24	7328.09	9398.72	77.97

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73	ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	10	4.24	6484.07	9398.72	68.99

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	28.7	4.64	10942.16	12778.71	85.63
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	28.7	4.64	10555.58	12778.71	82.60
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	28.7	4.64	10411.62	12778.71	81.48
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	28.7	4.64	9600.90	12778.71	75.13
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	28.7	4.64	10372.81	12778.71	81.17
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	28.7	4.64	9137.90	12778.71	71.51
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	28.7	4.64	12194.67	12778.71	95.43
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	28.7	4.64	10421.63	12778.71	81.55
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	28.7	4.64	10243.22	12778.71	80.16
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	28.7	4.64	10372.78	12778.71	81.17
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	28.7	4.64	10467.69	12778.71	81.92
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	28.7	4.64	10137.60	12778.71	79.33
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	28.7	4.64	10985.08	12778.71	85.96
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	28.7	4.64	10446.88	12778.71	81.75
17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	28.7	4.64	10769.89	12778.71	84.28
18	1801616-01 GWIN1807021305GSC 0.26798	180725G1_18	Analyte	28.7			12778.71	0.00
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	28.7	4.64	10955.51	12778.71	85.73
21	IPA	180725G1_21	Analyte	28.7			12778.71	0.00
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	28.7	4.64	3512.60	12778.71	27.49
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	28.7	4.64	3282.03	12778.71	25.68
24	1801716-01 Milk 0.005	180725G1_24	Analyte	28.7	4.64	3940.77	12778.71	30.84
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	28.7	4.64	12149.89	12778.71	95.08
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	28.7	4.64	11235.60	12778.71	87.92
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	28.7	4.64	12707.66	12778.71	99.44
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	28.7	4.64	11516.46	12778.71	90.12
29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	28.7	4.64	10064.75	12778.71	78.76
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	28.7	4.64	11272.64	12778.71	88.21
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	28.7	4.64	11869.09	12778.71	92.88
32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	28.7	4.64	10856.97	12778.71	84.96

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33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	28.7	4.64	10211.98	12778.71	79.91
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	28.7	4.64	10634.42	12778.71	83.22
35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	28.7	4.64	11259.41	12778.71	88.11
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	28.7	4.64	11237.94	12778.71	87.94
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	28.7	4.64	10096.18	12778.71	79.01
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	28.7	4.64	9412.82	12778.71	73.66
41	1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	28.7	4.64	10333.13	12778.71	80.86
42	1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	28.7	4.64	10540.96	12778.71	82.49
43	1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	28.7	4.64	11587.57	12778.71	90.68
44	1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	28.7	4.64	10292.35	12778.71	80.54
45	1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	28.7	4.64	11537.19	12778.71	90.28
46	1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	28.7	4.64	9887.22	12778.71	77.37
47	1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	28.7	4.64	10447.84	12778.71	81.76
48	1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	28.7	4.64	11235.62	12778.71	87.92
49	1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	28.7	4.64	11412.47	12778.71	89.31
50	1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	28.7	4.64	10574.53	12778.71	82.75
51	1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	28.7	4.64	11967.88	12778.71	93.65
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	28.7	4.64	10843.43	12778.71	84.86
55	1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	28.7	4.64	10522.05	12778.71	82.34
56	B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	28.7	4.64	9811.81	12778.71	76.78
57	B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	28.7	4.65	10853.51	12778.71	84.93
58	B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	28.7	4.64	10385.66	12778.71	81.27
59	1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	28.7	4.64	9603.53	12778.71	75.15
60	1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	28.7	4.64	10467.75	12778.71	81.92
61	1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	28.7	4.65	10491.14	12778.71	82.10
62	1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	28.7	4.64	10617.07	12778.71	83.08
63	1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	28.7	4.65	10489.15	12778.71	82.08
64	1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	28.7	4.65	10542.84	12778.71	82.50
65	1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	28.7	4.64	10850.89	12778.71	84.91
66	1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	28.7	4.64	9632.31	12778.71	75.38
67	1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	28.7	4.65	10746.55	12778.71	84.10
68	1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	28.7	4.64	10343.44	12778.71	80.94
69	1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	28.7	4.64	10037.60	12778.71	78.55
70	1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	28.7	4.65	10698.26	12778.71	83.72
71	1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	28.7	4.64	10233.17	12778.71	80.08
73	ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	28.7	4.64	9589.71	12778.71	75.04

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Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	%AREA
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	40	4.99	10192.81	15301.08	66.61
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	40	4.99	10094.29	15301.08	65.97
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	40	4.98	10269.84	15301.08	67.12
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	40	4.98	10005.71	15301.08	65.39
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	40	4.99	10522.98	15301.08	68.77
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	40	4.98	8763.73	15301.08	57.28
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	40	4.99	11979.89	15301.08	78.29
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	40	4.99	9243.06	15301.08	60.41
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	40	4.99	11192.84	15301.08	73.15
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	40	4.99	9600.73	15301.08	62.75
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	40	4.99	9517.66	15301.08	62.20
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	40	4.99	10753.06	15301.08	70.28
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	40	4.99	10458.23	15301.08	68.35
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	40	4.99	10880.90	15301.08	71.11
17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	40	4.99	10336.59	15301.08	67.55
18	1801616-01 GWIN1807021305GSC 0.26798	180725G1_18	Analyte	40			15301.08	0.00
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	40	4.99	11521.86	15301.08	75.30
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	40	5.00	623.57	15301.08	4.08
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	40	4.98	426.89	15301.08	2.79
24	1801716-01 Milk 0.005	180725G1_24	Analyte	40	4.99	1318.62	15301.08	8.62
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	40	4.99	11651.85	15301.08	76.15
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	40	4.98	11733.43	15301.08	76.68
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	40	4.99	12459.24	15301.08	81.43
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	40	4.99	9199.73	15301.08	60.12
29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	40	4.99	10506.05	15301.08	68.66
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	40	4.99	11445.47	15301.08	74.80
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	40	4.99	12250.24	15301.08	80.06
32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	40	4.99	10974.93	15301.08	71.73
33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	40	4.99	11433.54	15301.08	74.72
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	40	4.99	11641.21	15301.08	76.08

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35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	40	4.99	12554.83	15301.08	82.05
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	40	4.99	10974.73	15301.08	71.73
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	40	5.00	11357.80	15301.08	74.23
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	40	4.99	10630.07	15301.08	69.47
41	1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	40	4.99	9671.97	15301.08	63.21
42	1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	40	4.99	11208.58	15301.08	73.25
43	1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	40	4.99	12714.09	15301.08	83.09
44	1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	40	4.99	10749.00	15301.08	70.25
45	1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	40	4.99	12589.14	15301.08	82.28
46	1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	40	5.00	11203.83	15301.08	73.22
47	1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	40	5.00	10861.29	15301.08	70.98
48	1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	40	4.99	13191.68	15301.08	86.21
49	1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	40	5.00	12271.40	15301.08	80.20
50	1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	40	4.99	11772.42	15301.08	76.94
51	1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	40	4.99	12170.27	15301.08	79.54
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	40	4.99	11765.88	15301.08	76.90
55	1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	40	4.99	12065.88	15301.08	78.86
56	B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	40	4.99	10160.40	15301.08	66.40
57	B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	40	5.00	12184.51	15301.08	79.63
58	B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	40	4.99	11097.10	15301.08	72.52
59	1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	40	5.00	10019.50	15301.08	65.48
60	1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	40	4.99	11579.26	15301.08	75.68
61	1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	40	5.00	11248.87	15301.08	73.52
62	1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	40	4.99	12210.18	15301.08	79.80
63	1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	40	5.00	10819.27	15301.08	70.71
64	1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	40	5.00	12087.44	15301.08	79.00
65	1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	40	5.00	11055.35	15301.08	72.25
66	1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	40	5.01	9808.59	15301.08	64.10
67	1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	40	5.00	10929.52	15301.08	71.43
68	1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	40	5.00	10858.46	15301.08	70.97
69	1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	40	5.00	9935.02	15301.08	64.93
70	1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	40	5.01	12088.82	15301.08	79.01
71	1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	40	5.00	11032.77	15301.08	72.10
73	ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	40	5.01	9540.73	15301.08	62.35

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CCAL

Compound 18: 13C2-PFOA

ST180725G1-1 PFC CS-2 537 18G1803

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	10	4.24	6693.43	6693.43	100.00
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	10	4.24	6200.45	6693.43	92.63
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	10	4.24	6160.89	6693.43	92.04
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	10	4.24	5895.82	6693.43	88.08
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	10	4.23	6738.82	6693.43	100.68
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	10	4.23	6129.03	6693.43	91.57
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	10	4.24	7670.96	6693.43	114.60
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	10	4.23	6724.71	6693.43	100.47
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	10	4.23	6780.80	6693.43	101.31
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	10	4.23	6808.51	6693.43	101.72
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	10	4.24	6398.88	6693.43	95.60
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	10	4.23	6639.73	6693.43	99.20
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	10	4.24	7073.85	6693.43	105.68
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	10	4.23	6395.60	6693.43	95.55
17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	10	4.23	6859.30	6693.43	102.48
18	1801616-01 GWIN1807021305GSC 0.26798	180725G1_18	Analyte	10			6693.43	0.00
19	IPA	180725G1_19	Analyte	10			6693.43	0.00
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	10	4.24	6727.08	6693.43	100.50

ST180725G1-2 PFC CS2 537 18G1807

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	10	4.24	6727.08	6727.08	100.00
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	10	4.24	6125.34	6727.08	91.05
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	10	4.23	6066.55	6727.08	90.18
24	1801716-01 Milk 0.005	180725G1_24	Analyte	10	4.24	7443.78	6727.08	110.65
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	10	4.23	7876.84	6727.08	117.09
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	10	4.23	7253.43	6727.08	107.82
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	10	4.24	7907.98	6727.08	117.55
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	10	4.24	7228.70	6727.08	107.46

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29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	10	4.23	6729.46	6727.08	100.04
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	10	4.23	7493.73	6727.08	111.40
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	10	4.24	7117.90	6727.08	105.81
32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	10	4.23	6840.02	6727.08	101.68
33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	10	4.23	6445.07	6727.08	95.81
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	10	4.24	6901.98	6727.08	102.60
35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	10	4.24	7567.20	6727.08	112.49
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	10	4.23	7512.02	6727.08	111.67
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	10	4.23	6874.07	6727.08	102.19
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	10	4.23	6190.31	6727.08	92.02

ST180725G1-3 PFC CS4 537 18G1809

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
39 ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	10	4.23	6190.31	6190.31	100.00
41 1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	10	4.23	6334.54	6190.31	102.33
42 1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	10	4.24	6770.11	6190.31	109.37
43 1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	10	4.24	7490.55	6190.31	121.00
44 1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	10	4.24	6474.07	6190.31	104.58
45 1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	10	4.24	8177.18	6190.31	132.10
46 1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	10	4.24	6970.43	6190.31	112.60
47 1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	10	4.24	6473.52	6190.31	104.57
48 1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	10	4.24	8055.13	6190.31	130.12
49 1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	10	4.24	7612.72	6190.31	122.98
50 1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	10	4.24	6749.73	6190.31	109.04
51 1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	10	4.24	8215.91	6190.31	132.72
52 IPA	180725G1_52	Analyte	10			6190.31	0.00
53 ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	10	4.24	7397.57	6190.31	119.50

ST180725G1-4 PFC CS-2 537 18G1803

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
53 ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	10	4.24	7397.57	7397.57	100.00
55 1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	10	4.24	6901.97	7397.57	93.30
56 B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	10	4.23	6536.00	7397.57	88.35

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57	B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	10	4.24	7222.33	7397.57	97.63
58	B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	10	4.24	6995.15	7397.57	94.56
59	1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	10	4.23	6633.46	7397.57	89.67
60	1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	10	4.23	7500.12	7397.57	101.39
61	1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	10	4.24	7362.24	7397.57	99.52
62	1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	10	4.24	7795.44	7397.57	105.38
63	1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	10	4.24	6993.06	7397.57	94.53
64	1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	10	4.24	7395.27	7397.57	99.97
65	1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	10	4.24	7362.24	7397.57	99.52
66	1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	10	4.24	6548.23	7397.57	88.52
67	1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	10	4.24	7133.78	7397.57	96.43
68	1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	10	4.24	7114.54	7397.57	96.17
69	1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	10	4.24	6517.56	7397.57	88.10
70	1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	10	4.24	8010.98	7397.57	108.29
71	1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	10	4.24	7328.09	7397.57	99.06
73	ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	10	4.24	6484.07	7397.57	87.65

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ST180723G2-1 PFC CS-1 537 18G1804

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	28.7	4.64	10942.16	10942.16	100.00
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	28.7	4.64	10555.58	10942.16	96.47
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	28.7	4.64	10411.62	10942.16	95.15
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	28.7	4.64	9600.90	10942.16	87.74
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	28.7	4.64	10372.81	10942.16	94.80
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	28.7	4.64	9137.90	10942.16	83.51
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	28.7	4.64	12194.67	10942.16	111.45
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	28.7	4.64	10421.63	10942.16	95.24
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	28.7	4.64	10243.22	10942.16	93.61
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	28.7	4.64	10372.78	10942.16	94.80
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	28.7	4.64	10467.69	10942.16	95.66
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	28.7	4.64	10137.60	10942.16	92.65
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	28.7	4.64	10985.08	10942.16	100.39
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	28.7	4.64	10446.88	10942.16	95.47

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17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	28.7	4.64	10769.89	10942.16	98.43
18	1801616-01 GWIN1807021305GSC 0.26798	180725G1_18	Analyte	28.7			10942.16	0.00
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	28.7	4.64	10955.51	10942.16	100.12

ST180725G1-2 PFC CS2 537 18G1807

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	28.7	4.64	10955.51	10955.51	100.00
21	IPA	180725G1_21	Analyte	28.7			10955.51	0.00
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	28.7	4.64	3512.60	10955.51	32.06
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	28.7	4.64	3282.03	10955.51	29.96
24	1801716-01 Milk 0.005	180725G1_24	Analyte	28.7	4.64	3940.77	10955.51	35.97
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	28.7	4.64	12149.89	10955.51	110.90
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	28.7	4.64	11235.60	10955.51	102.56
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	28.7	4.64	12707.66	10955.51	115.99
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	28.7	4.64	11516.46	10955.51	105.12
29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	28.7	4.64	10064.75	10955.51	91.87
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	28.7	4.64	11272.64	10955.51	102.89
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	28.7	4.64	11869.09	10955.51	108.34
32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	28.7	4.64	10856.97	10955.51	99.10
33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	28.7	4.64	10211.98	10955.51	93.21
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	28.7	4.64	10634.42	10955.51	97.07
35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	28.7	4.64	11259.41	10955.51	102.77
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	28.7	4.64	11237.94	10955.51	102.58
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	28.7	4.64	10096.18	10955.51	92.16
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	28.7	4.64	9412.82	10955.51	85.92

ST180725G1-3 PFC CS4 537 18G1809

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	28.7	4.64	9412.82	9412.82	100.00
41	1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	28.7	4.64	10333.13	9412.82	109.78
42	1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	28.7	4.64	10540.96	9412.82	111.99
43	1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	28.7	4.64	11587.57	9412.82	123.10
44	1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	28.7	4.64	10292.35	9412.82	109.34
45	1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	28.7	4.64	11537.19	9412.82	122.57

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46	1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	28.7	4.64	9887.22	9412.82	105.04
47	1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	28.7	4.64	10447.84	9412.82	111.00
48	1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	28.7	4.64	11235.62	9412.82	119.37
49	1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	28.7	4.64	11412.47	9412.82	121.24
50	1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	28.7	4.64	10574.53	9412.82	112.34
51	1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	28.7	4.64	11967.88	9412.82	127.14
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	28.7	4.64	10843.43	9412.82	115.20

ST180725G1-4 PFC CS-2 537 18G1803

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
53 ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	28.7	4.64	10843.43	10843.43	100.00
55 1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	28.7	4.64	10522.05	10843.43	97.04
56 B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	28.7	4.64	9811.81	10843.43	90.49
57 B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	28.7	4.65	10853.51	10843.43	100.09
58 B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	28.7	4.64	10385.66	10843.43	95.78
59 1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	28.7	4.64	9603.53	10843.43	88.57
60 1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	28.7	4.64	10467.75	10843.43	96.54
61 1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	28.7	4.65	10491.14	10843.43	96.75
62 1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	28.7	4.64	10617.07	10843.43	97.91
63 1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	28.7	4.65	10489.15	10843.43	96.73
64 1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	28.7	4.65	10542.84	10843.43	97.23
65 1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	28.7	4.64	10850.89	10843.43	100.07
66 1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	28.7	4.64	9632.31	10843.43	88.83
67 1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	28.7	4.65	10746.55	10843.43	99.11
68 1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	28.7	4.64	10343.44	10843.43	95.39
69 1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	28.7	4.64	10037.60	10843.43	92.57
70 1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	28.7	4.65	10698.26	10843.43	98.66
71 1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	28.7	4.64	10233.17	10843.43	94.37
73 ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	28.7	4.64	9589.71	10843.43	88.44

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ST180725G1-1 PFC CS-2 537 18G1803

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
2	ST180725G1-1 PFC CS-2 537 18G1803	180725G1_2	Analyte	40	4.99	10192.81	10192.81	100.00
4	1801824-05 CBD-1RW25-0718 0.24505	180725G1_4	Analyte	40	4.99	10094.29	10192.81	99.03
5	1801824-06 CBD-1FB25-0718 0.25439	180725G1_5	Analyte	40	4.98	10269.84	10192.81	100.76
6	1801824-07 CBD-1RW26-0718 0.25368	180725G1_6	Analyte	40	4.98	10005.71	10192.81	98.16
7	1801824-08 CBD-1FB26-0718 0.24525	180725G1_7	Analyte	40	4.99	10522.98	10192.81	103.24
8	1801824-09 CBD-1RW27-0718 0.25251	180725G1_8	Analyte	40	4.98	8763.73	10192.81	85.98
9	1801824-10 CBD-1FB27-0718 0.25608	180725G1_9	Analyte	40	4.99	11979.89	10192.81	117.53
10	1801824-11 CBD-1RW28-0718 0.25482	180725G1_10	Analyte	40	4.99	9243.06	10192.81	90.68
11	1801824-12 CBD-1FB28-0718 0.25788	180725G1_11	Analyte	40	4.99	11192.84	10192.81	109.81
12	1801824-13 CBD-1RW29-0718 0.25606	180725G1_12	Analyte	40	4.99	9600.73	10192.81	94.19
13	1801824-14 CBD-1FB29-0718 0.25267	180725G1_13	Analyte	40	4.99	9517.66	10192.81	93.38
14	1801824-15 CBD-1RW30-0718 0.25164	180725G1_14	Analyte	40	4.99	10753.06	10192.81	105.50
15	1801824-16 CBD-1FB30-0718 0.25136	180725G1_15	Analyte	40	4.99	10458.23	10192.81	102.60
16	1801824-17 CBD-1RW31-0718 0.25381	180725G1_16	Analyte	40	4.99	10880.90	10192.81	
17	1801824-18 CBD-1FB31-0718 0.25806	180725G1_17	Analyte	40	4.99	10336.59	10192.81	
18	1801616-01 GWIN1807021305GSC 0.26798	180725G1_18	Analyte	40			10192.81	
19	IPA	180725G1_19	Analyte	40			10192.81	
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	40	4.99	11521.86	10192.81	

ST180725G1-2 PFC CS2 537 18G1807

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
20	ST180725G1-2 PFC CS2 537 18G1807	180725G1_20	Analyte	40	4.99	11521.86	11521.86	100.00
21	IPA	180725G1_21	Analyte	40			11521.86	0.00
22	B8G0128-BLK1 Method Blank 0.005	180725G1_22	Analyte	40	5.00	623.57	11521.86	5.41
23	B8G0128-BS1 OPR 0.005	180725G1_23	Analyte	40	4.98	426.89	11521.86	3.71
24	1801716-01 Milk 0.005	180725G1_24	Analyte	40	4.99	1318.62	11521.86	11.44
25	B8G0162-BLK1 LRB 0.25	180725G1_25	Analyte	40	4.99	11651.85	11521.86	101.13
26	B8G0162-BS1 LFB 0.25	180725G1_26	Analyte	40	4.98	11733.43	11521.86	101.84
27	B8G0162-BSD1 LFBD 0.25	180725G1_27	Analyte	40	4.99	12459.24	11521.86	108.14
28	1801860-01 WT1807190850MK 0.2497	180725G1_28	Analyte	40	4.99	9199.73	11521.86	79.85
29	1801860-02 FB1807190855MK 0.24944	180725G1_29	Analyte	40	4.99	10506.05	11521.86	91.18
30	1801864-01 GWEF1807190835MK 0.24775	180725G1_30	Analyte	40	4.99	11445.47	11521.86	99.34
31	B8G0095-BLK1 LRB 0.25	180725G1_31	Analyte	40	4.99	12250.24	11521.86	106.32

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32	B8G0095-BS1 LFB 0.25	180725G1_32	Analyte	40	4.99	10974.93	11521.86	95.25
33	B8G0095-MS1 LFSM 0.25019	180725G1_33	Analyte	40	4.99	11433.54	11521.86	99.23
34	B8G0095-MSD1 LFSMD 0.26415	180725G1_34	Analyte	40	4.99	11641.21	11521.86	101.04
35	1801637-01 GWNT1807050810KER 0.24753	180725G1_35	Analyte	40	4.99	12554.83	11521.86	108.97
36	1801638-01 GWNT1807060930GGA 0.25629	180725G1_36	Analyte	40	4.99	10974.73	11521.86	95.25
37	1801638-02 GWNT1807060945GGA 0.24935	180725G1_37	Analyte	40	5.00	11357.80	11521.86	98.58
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	40	4.99	10630.07	11521.86	92.26

ST180725G1-3 PFC CS4 537 18G1809

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
39	ST180725G1-3 PFC CS4 537 18G1809	180725G1_39	Analyte	40	4.99	10630.07	10630.07	100.00
41	1801638-03 GWNT1807060950GGA 0.25092	180725G1_41	Analyte	40	4.99	9671.97	10630.07	90.99
42	1801638-04 GWNT1807061030GGA 0.24268	180725G1_42	Analyte	40	4.99	11208.58	10630.07	105.44
43	1801638-05 GWNT1807061035GGA 0.25257	180725G1_43	Analyte	40	4.99	12714.09	10630.07	119.60
44	1801639-01 GWEF1807061110GGA 0.2486	180725G1_44	Analyte	40	4.99	10749.00	10630.07	101.12
45	1801640-01 GWIN1807050850KER 0.25071	180725G1_45	Analyte	40	4.99	12589.14	10630.07	118.43
46	1801640-02 GWEF1807050900KER 0.2548	180725G1_46	Analyte	40	5.00	11203.83	10630.07	105.40
47	1801641-01 GWEF1807061150GGA 0.26097	180725G1_47	Analyte	40	5.00	10861.29	10630.07	102.18
48	1801642-01 GWEF1807061215GGA-FD 0.2456	180725G1_48	Analyte	40	4.99	13191.68	10630.07	124.10
49	1801642-02 GWEF1807061220GGA 0.25561	180725G1_49	Analyte	40	5.00	12271.40	10630.07	115.44
50	1801642-03 FB1807061225GGA 0.25525	180725G1_50	Analyte	40	4.99	11772.42	10630.07	110.75
51	1801643-01 GWEF1807051045KER 0.24379	180725G1_51	Analyte	40	4.99	12170.27	10630.07	114.49
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	40	4.99	11765.88	10630.07	110.68

ST180725G1-4 PFC CS-2 537 18G1803

	ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
53	ST180725G1-4 PFC CS-2 537 18G1803	180725G1_53	Analyte	40	4.99	11765.88	11765.88	100.00
55	1801644-01 GWEF1807051200KER 0.248	180725G1_55	Analyte	40	4.99	12065.88	11765.88	102.55
56	B8G0167-BLK1 LRB 0.25	180725G1_56	Analyte	40	4.99	10160.40	11765.88	86.35
57	B8G0167-BS1 LFB 0.25	180725G1_57	Analyte	40	5.00	12184.51	11765.88	103.56
58	B8G0167-BSD1 LFBD 0.25	180725G1_58	Analyte	40	4.99	11097.10	11765.88	94.32
59	1801868-01 CBD-1RW32-0718 0.24293	180725G1_59	Analyte	40	5.00	10019.50	11765.88	85.16
60	1801868-02 CBD-1FB32-0718 0.25868	180725G1_60	Analyte	40	4.99	11579.26	11765.88	98.41

MJT 7/26/2018

61	1801868-03 CBD-1RW33-0718 0.2415	180725G1_61	Analyte	40	5.00	11248.87	11765.88	95.61
62	1801868-04 CBD-1FB33-0718 0.24925	180725G1_62	Analyte	40	4.99	12210.18	11765.88	103.78
63	1801868-05 CBD-1RW34-0718 0.23978	180725G1_63	Analyte	40	5.00	10819.27	11765.88	91.95
64	1801868-06 CBD-1FB34-0718 0.25042	180725G1_64	Analyte	40	5.00	12087.44	11765.88	102.73
65	1801868-07 CBD-1RW35-0718 0.23429	180725G1_65	Analyte	40	5.00	11055.35	11765.88	93.96
66	1801868-08 CBD-1FB35-0718 0.25599	180725G1_66	Analyte	40	5.01	9808.59	11765.88	83.36
67	1801868-09 CBD-1RW36-0718 0.24217	180725G1_67	Analyte	40	5.00	10929.52	11765.88	92.89
68	1801868-10 CBD-1FB36-0718 0.25374	180725G1_68	Analyte	40	5.00	10858.46	11765.88	92.29
69	1801868-11 CBD-1RW37-0718 0.23938	180725G1_69	Analyte	40	5.00	9935.02	11765.88	84.44
70	1801868-12 CBD-1FB37-0718 0.24955	180725G1_70	Analyte	40	5.01	12088.82	11765.88	102.74
71	1801616-01 GWIN1807021305GSC 0.26798	180725G1_71	Analyte	40	5.00	11032.77	11765.88	93.77
73	ST180725G1-5 PFC CS2 537 18G1807	180725G1_73	Analyte	40	5.01	9540.73	11765.88	81.09

MJT 7/26/2018

LC Calibration Standards Review Checklist Q1

		ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
		NA						
Calibration ID: ST180725G1-1	L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID: ↓ -2	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: 7/10/18

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Instrument Blank Saved ☐ N/A

IIS Area Saved ☑

Reviewed By: MJT 7/25/18
Initials/Date

Comments:

DW-L14

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-2.qld

Last Altered: Wednesday, July 25, 2018 14:08:39 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:09:20 Pacific Daylight Time

MJT 7/25/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_2, Date: 25-Jul-2018, Time: 08:25:47, ID: ST180725G1-1 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

50-150%

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	298.6> 80.5	3.18e2	1.09e4	1.00		2.90	2.90	0.834	0.877	98.8
2	2 PFHxA	312.7 > 268.8	5.93e2	6.69e3	1.00		3.28	3.28	0.885	1.09	108.9
3	3 PFHpA	362.7 > 318.8	5.81e2	6.69e3	1.00		3.82	3.82	0.868	0.990	99.0
4	4 PFHxS	398.7 > 80.7	3.54e2	1.09e4	1.00		3.94	3.94	0.928	0.822	90.1
5	5 PFOA	412.8 > 369.0	4.33e2	6.69e3	1.00		4.23	4.23	0.646	0.886	88.6
6	6 PFNA	462.9 > 419.1	5.83e2	6.69e3	1.00		4.58	4.58	0.870	0.999	99.9
7	7 PFOS	498.8 >80.7	7.86e1	1.09e4	1.00		4.63	4.63	0.206	0.558	60.1
8	8 PFDA	512.8 > 469.0	5.09e2	6.69e3	1.00		4.87	4.87	0.761	0.873	87.3
9	9 N-MeFOSAA	569.7 > 419.0	2.88e2	1.02e4	1.00		4.99	4.99	1.13	0.977	97.7
10	10 N-EtFOSAA	583.6 >419.1	1.88e2	1.02e4	1.00		5.12	5.12	0.736	0.738	73.8
11	11 PFUnA	562.7 > 518.9	5.68e2	6.69e3	1.00		5.12	5.12	0.849	0.884	88.4
12	12 PFDoA	612.5 > 319.0	8.27e1	6.69e3	1.00		5.37	5.37	0.124	0.841	84.1
13	13 PFTrDA	662.4 > 618.7	5.34e2	6.69e3	1.00		5.58	5.58	0.797	0.884	88.4
14	14 PFTeDA	712.2>668.4	6.37e2	6.69e3	1.00		5.75	5.75	0.952	1.03	102.8
15	15 13C2-PFHxA	314.8 > 269.9	5.38e3	6.69e3	1.00	0.753	3.40	3.28	8.03	10.7	106.7
16	16 13C2-PFDA	514.8 > 470.0	7.26e3	6.69e3	1.00	1.023	4.83	4.87	10.9	10.6	106.1
17	17 d5-N-EtFOSAA	588.7> 419.1	1.45e4	1.02e4	1.00	1.264	4.99	5.11	56.9	45.0	112.6
18	18 13C2-PFOA	414.8 > 370.1	6.69e3	6.69e3	1.00	1.000	4.24	4.24	10.0	10.0	100.0
19	19 13C4-PFOS	502.8>80.7	1.09e4	1.09e4	1.00	1.000	4.64	4.64	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	572.7 > 419.1	1.02e4	1.02e4	1.00	1.000	4.99	4.99	40.0	40.0	100.0

CLK 7/25/18

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, July 25, 2018 14:12:33 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:12:45 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 180725G1_2	ST180725G1-1 PFC CS-2 537 18G1803	25-Jul-18	08:25:47
2	2 180725G1_3	IPA	25-Jul-18	08:38:36
3	3 180725G1_4	1801824-05 CBD-1RW25-0718 0.24505	25-Jul-18	08:54:08
4	4 180725G1_5	1801824-06 CBD-1FB25-0718 0.25439	25-Jul-18	09:06:11
5	5 180725G1_6	1801824-07 CBD-1RW26-0718 0.25368	25-Jul-18	09:19:03
6	6 180725G1_7	1801824-08 CBD-1FB26-0718 0.24525	25-Jul-18	09:31:53
7	7 180725G1_8	1801824-09 CBD-1RW27-0718 0.25251	25-Jul-18	09:44:42
8	8 180725G1_9	1801824-10 CBD-1FB27-0718 0.25608	25-Jul-18	09:57:31
9	9 180725G1_10	1801824-11 CBD-1RW28-0718 0.25482	25-Jul-18	10:10:21
10	10 180725G1_11	1801824-12 CBD-1FB28-0718 0.25788	25-Jul-18	10:23:10
11	11 180725G1_12	1801824-13 CBD-1RW29-0718 0.25606	25-Jul-18	10:36:00
12	12 180725G1_13	1801824-14 CBD-1FB29-0718 0.25267	25-Jul-18	10:48:45
13	13 180725G1_14	1801824-15 CBD-1RW30-0718 0.25164	25-Jul-18	11:01:35
14	14 180725G1_15	1801824-16 CBD-1FB30-0718 0.25136	25-Jul-18	11:14:23
15	15 180725G1_16	1801824-17 CBD-1RW31-0718 0.25381	25-Jul-18	11:27:13
16	16 180725G1_17	1801824-18 CBD-1FB31-0718 0.25806	25-Jul-18	11:40:03
17	17 180725G1_18	1801616-01 GWIN1807021305GSC 0....		
18	18 180725G1_19	IPA	25-Jul-18	11:55:46
19	19 180725G1_20	ST180725G1-2 PFC CS2 537 18G1807	25-Jul-18	12:07:51

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-2.qld

Last Altered: Wednesday, July 25, 2018 14:08:39 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:09:20 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_2, Date: 25-Jul-2018, Time: 08:25:47, ID: ST180725G1-1 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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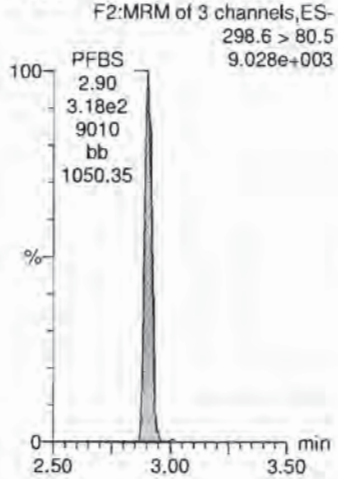

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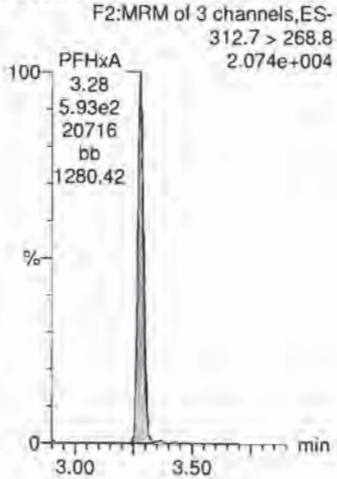

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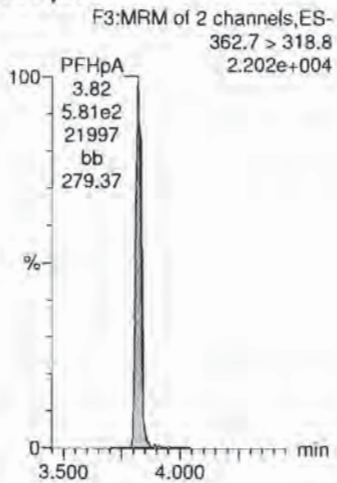

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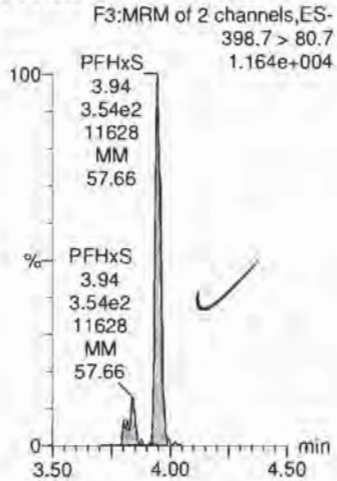
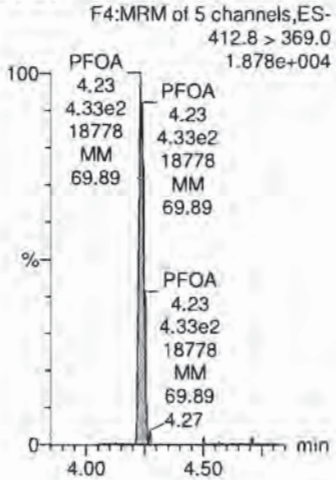


PFOA



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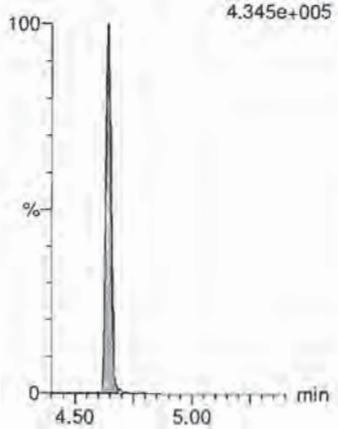

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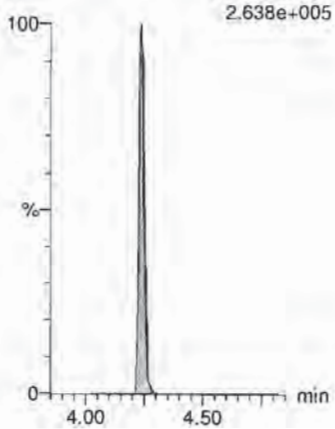

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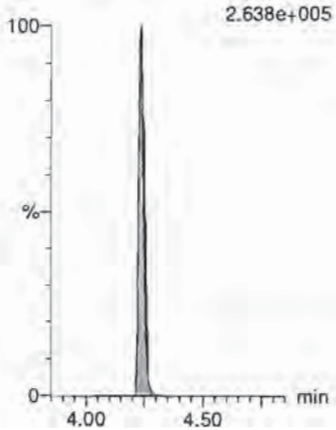

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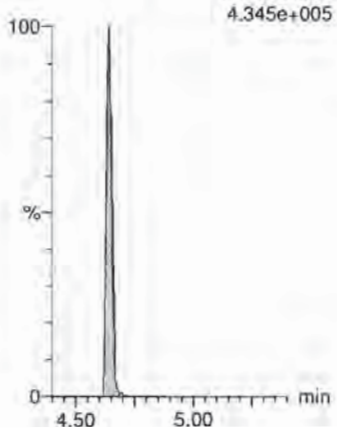

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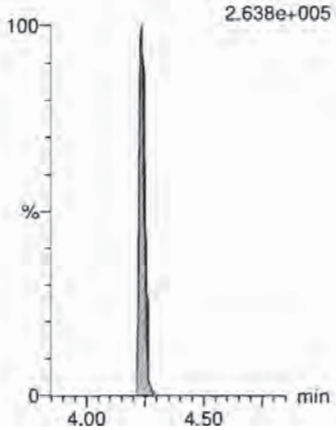

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-2.qld

Last Altered: Wednesday, July 25, 2018 14:08:39 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:09:20 Pacific Daylight Time

Name: 180725G1_2, Date: 25-Jul-2018, Time: 08:25:47, ID: ST180725G1-1 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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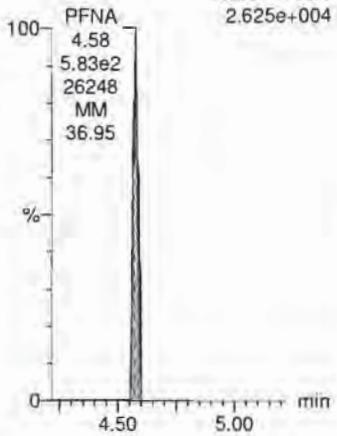

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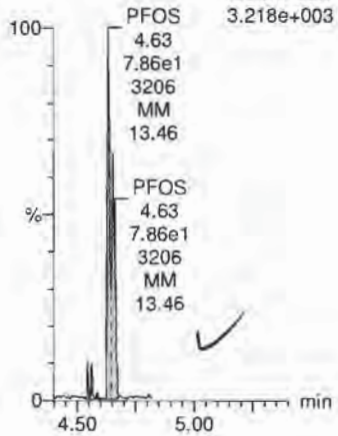

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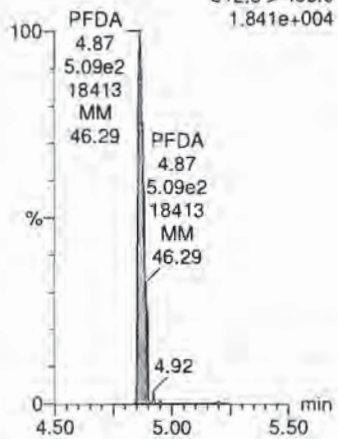

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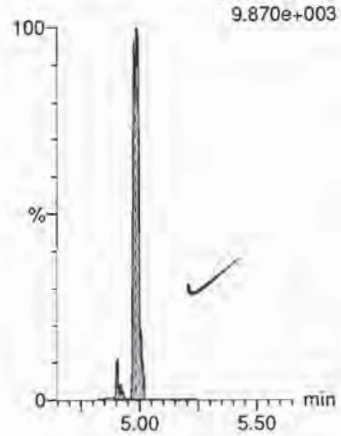

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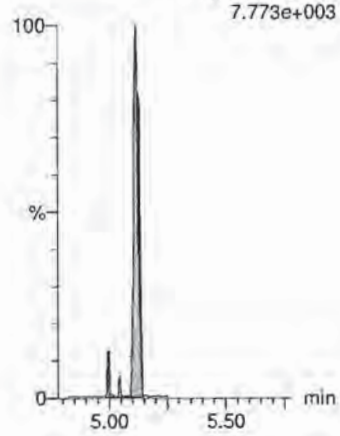

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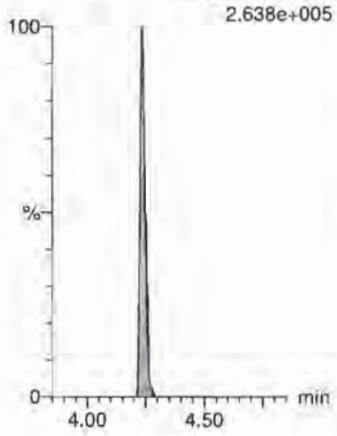

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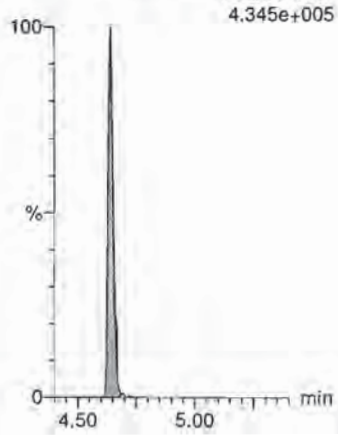

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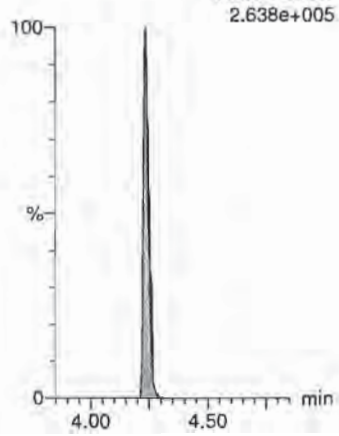

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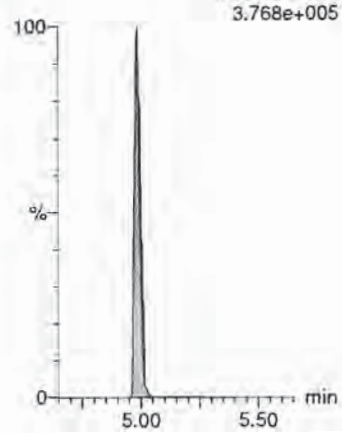

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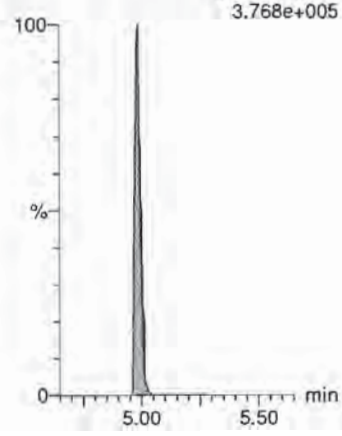


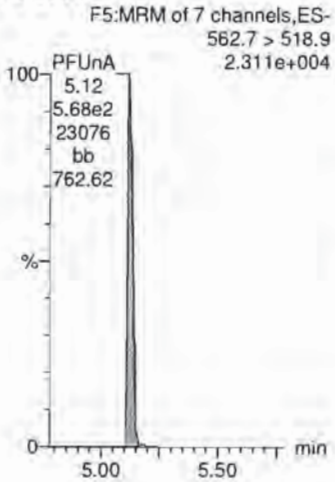
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-2.qld

Last Altered: Wednesday, July 25, 2018 14:08:39 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:09:20 Pacific Daylight Time

Name: 180725G1_2, Date: 25-Jul-2018, Time: 08:25:47, ID: ST180725G1-1 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

PFUnA



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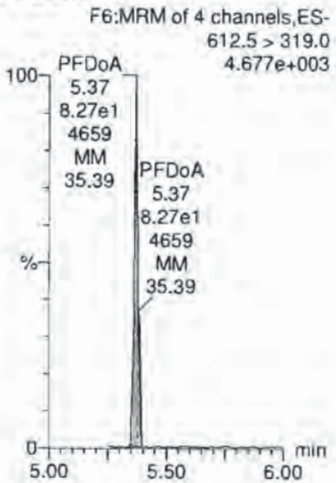

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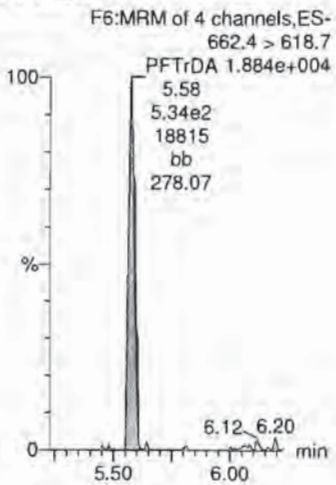

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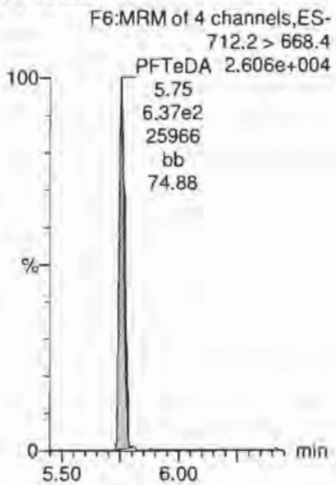

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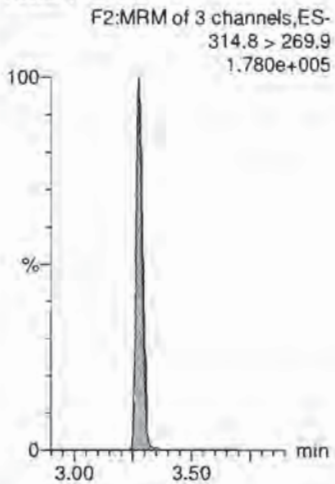
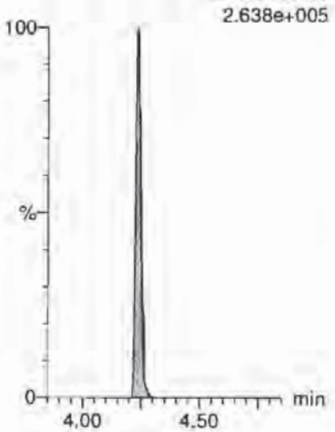


13C2-PFOA



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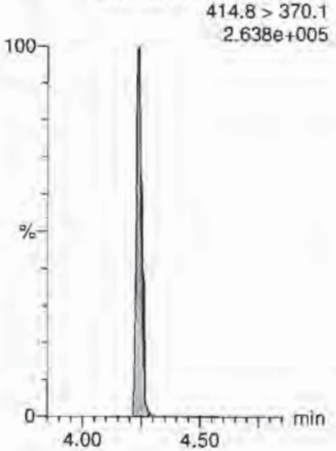

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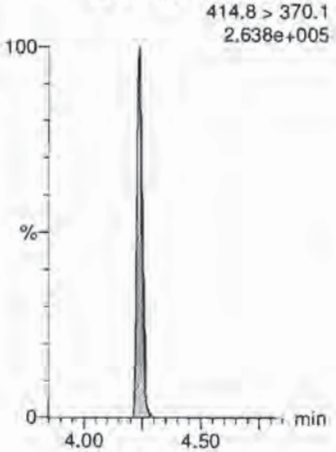

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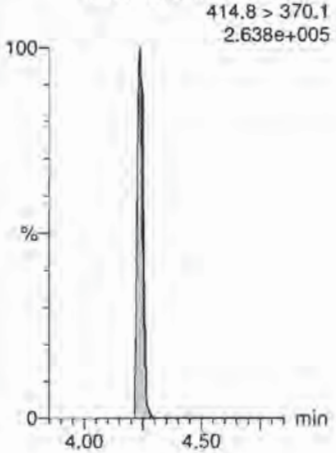
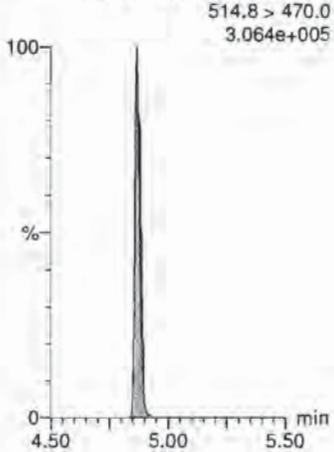


13C2-PFDA

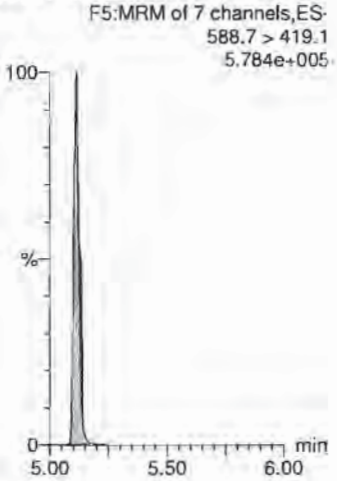


Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-2.qld

Last Altered: Wednesday, July 25, 2018 14:08:39 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:09:20 Pacific Daylight Time

Name: 180725G1_2, Date: 25-Jul-2018, Time: 08:25:47, ID: ST180725G1-1 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

d5-N-EtFOSAA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-20.qld

Last Altered: Wednesday, July 25, 2018 14:10:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:11:38 Pacific Daylight Time

MJT 7/26/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_20, Date: 25-Jul-2018, Time: 12:07:51, ID: ST180725G1-2 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	7.00e3	1.10e4	1.00		2.90	2.90	18.3	19.3	87.2
2	2	PFHxA	312.7 > 268.8	1.44e4	6.73e3	1.00		3.28	3.28	21.4	26.3	105.3
3	3	PFHpA	362.7 > 318.8	1.48e4	6.73e3	1.00		3.82	3.82	22.0	25.1	100.3
4	4	PFHxS	398.7 > 80.7	8.60e3	1.10e4	1.00		3.94	3.94	22.5	20.0	87.5
5	5	PFOA	412.8 > 369.0	1.09e4	6.73e3	1.00		4.23	4.23	16.2	22.2	88.8
6	6	PFNA	462.9 > 419.1	1.58e4	6.73e3	1.00		4.58	4.58	23.5	26.9	107.7
7	7	PFOS	498.8 >80.7	2.98e3	1.10e4	1.00		4.63	4.65	7.82	21.1	91.5
8	8	PFDA	512.8 > 469.0	1.57e4	6.73e3	1.00		4.87	4.88	23.3	26.8	107.1
9	9	N-MeFOSAA	569.7 > 419.0	8.51e3	1.15e4	1.00		4.99	4.99	29.6	25.6	102.2
10	10	N-EtFOSAA	583.6 >419.1	7.52e3	1.15e4	1.00		5.12	5.11	26.1	26.2	104.7
11	11	PFUnA	562.7 > 518.9	1.73e4	6.73e3	1.00		5.12	5.12	25.8	26.8	107.3
12	12	PFDoA	612.5 > 319.0	2.67e3	6.73e3	1.00		5.37	5.37	3.97	27.0	108.1
13	13	PFTrDA	662.4 > 618.7	1.57e4	6.73e3	1.00		5.58	5.58	23.4	25.9	103.7
14	14	PFTeDA	712.2>668.4	1.70e4	6.73e3	1.00		5.75	5.76	25.3	27.3	109.1
15	15	13C2-PFHxA	314.8 > 269.9	5.47e3	6.73e3	1.00	0.753	3.40	3.28	8.13	10.8	108.0
16	16	13C2-PFDA	514.8 > 470.0	7.75e3	6.73e3	1.00	1.023	4.83	4.88	11.5	11.3	112.6
17	17	d5-N-EtFOSAA	588.7> 419.1	1.29e4	1.15e4	1.00	1.264	4.99	5.11	44.7	35.3	88.4
18	18	13C2-PFOA	414.8 > 370.1	6.73e3	6.73e3	1.00	1.000	4.24	4.24	10.0	10.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.10e4	1.10e4	1.00	1.000	4.64	4.64	28.7	28.7	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.15e4	1.15e4	1.00	1.000	4.99	4.99	40.0	40.0	100.0

CGH 7/25/18

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, July 25, 2018 14:12:33 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:12:45 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS

	#	Name	ID	Acq.Date	Acq.Time
1	1	180725G1_2	ST180725G1-1 PFC CS-2 537 18G1803	25-Jul-18	08:25:47
2	2	180725G1_3	IPA	25-Jul-18	08:38:36
3	3	180725G1_4	1801824-05 CBD-1RW25-0718 0.24505	25-Jul-18	08:54:08
4	4	180725G1_5	1801824-06 CBD-1FB25-0718 0.25439	25-Jul-18	09:06:11
5	5	180725G1_6	1801824-07 CBD-1RW26-0718 0.25368	25-Jul-18	09:19:03
6	6	180725G1_7	1801824-08 CBD-1FB26-0718 0.24525	25-Jul-18	09:31:53
7	7	180725G1_8	1801824-09 CBD-1RW27-0718 0.25251	25-Jul-18	09:44:42
8	8	180725G1_9	1801824-10 CBD-1FB27-0718 0.25608	25-Jul-18	09:57:31
9	9	180725G1_10	1801824-11 CBD-1RW28-0718 0.25482	25-Jul-18	10:10:21
10	10	180725G1_11	1801824-12 CBD-1FB28-0718 0.25788	25-Jul-18	10:23:10
11	11	180725G1_12	1801824-13 CBD-1RW29-0718 0.25606	25-Jul-18	10:36:00
12	12	180725G1_13	1801824-14 CBD-1FB29-0718 0.25267	25-Jul-18	10:48:45
13	13	180725G1_14	1801824-15 CBD-1RW30-0718 0.25164	25-Jul-18	11:01:35
14	14	180725G1_15	1801824-16 CBD-1FB30-0718 0.25136	25-Jul-18	11:14:23
15	15	180725G1_16	1801824-17 CBD-1RW31-0718 0.25381	25-Jul-18	11:27:13
16	16	180725G1_17	1801824-18 CBD-1FB31-0718 0.25806	25-Jul-18	11:40:03
17	17	180725G1_18	1801616-01 GWIN1807021305GSC 0....		
18	18	180725G1_19	IPA	25-Jul-18	11:55:46
19	19	180725G1_20	ST180725G1-2 PFC CS2 537 18G1807	25-Jul-18	12:07:51

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

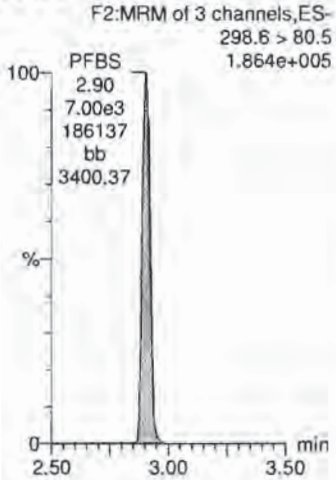
Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-20.qld

Last Altered: Wednesday, July 25, 2018 14:10:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:11:38 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0725.mdb 25 Jul 2018 10:07:49
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180725G1_20, Date: 25-Jul-2018, Time: 12:07:51, ID: ST180725G1-2 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

PFBS



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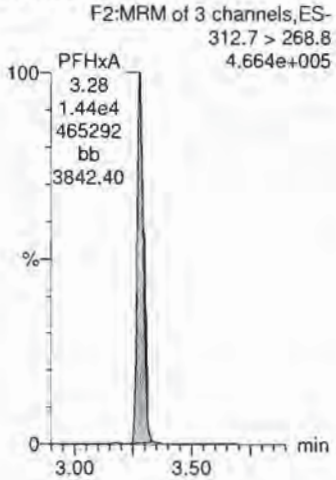

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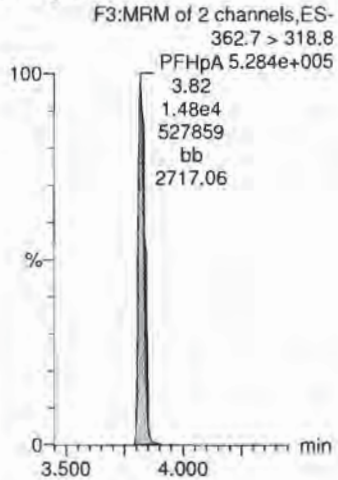

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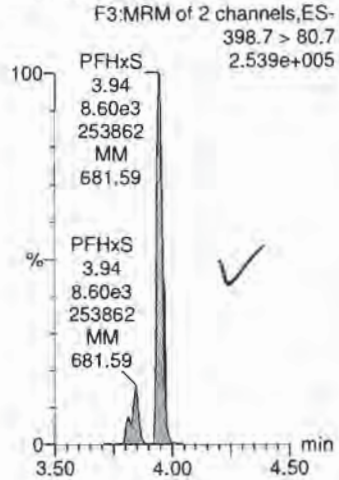
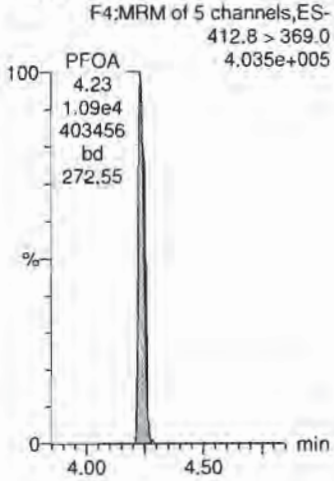


PFOA



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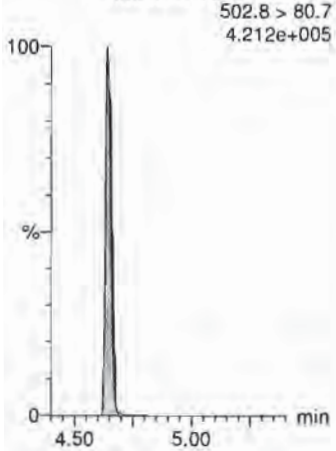

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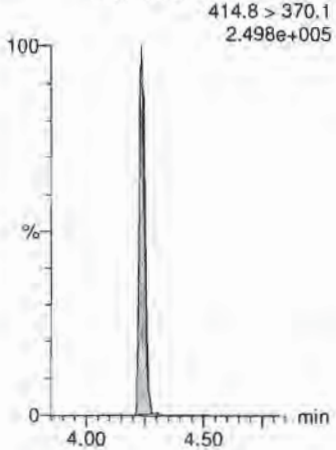

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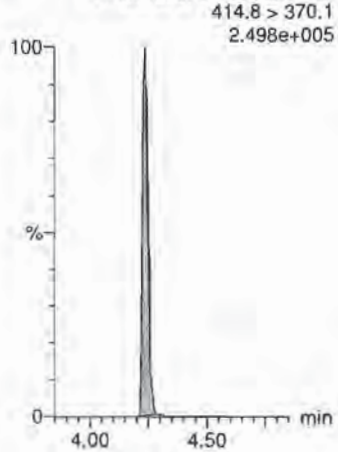

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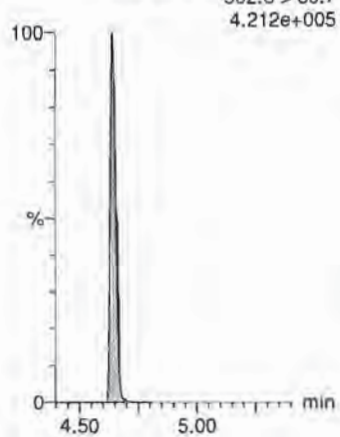

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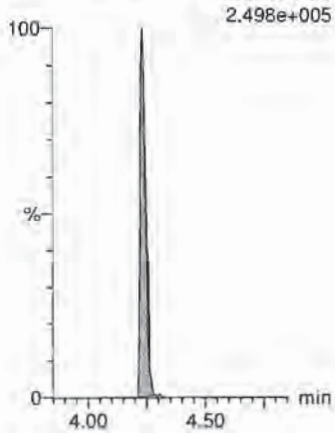

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-20.qld

Last Altered: Wednesday, July 25, 2018 14:10:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:11:38 Pacific Daylight Time

Name: 180725G1_20, Date: 25-Jul-2018, Time: 12:07:51, ID: ST180725G1-2 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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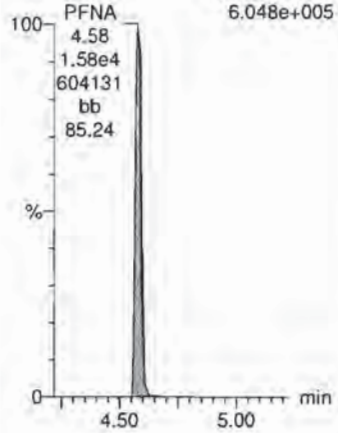

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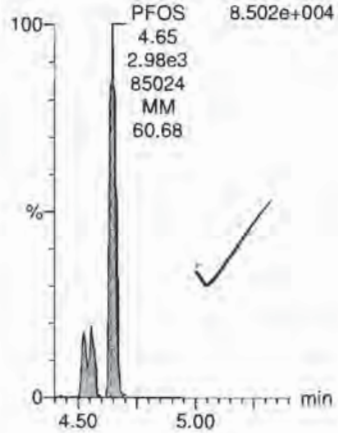

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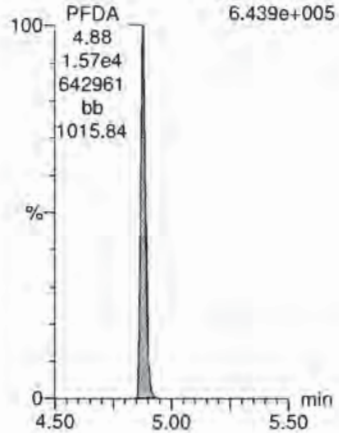

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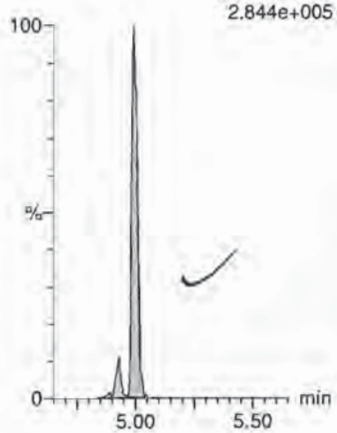

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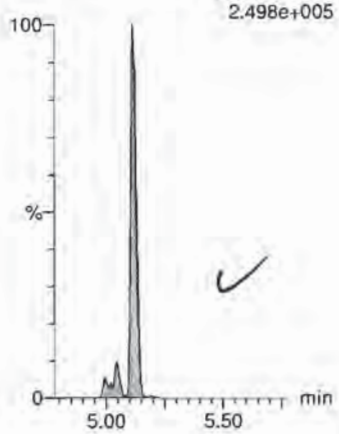

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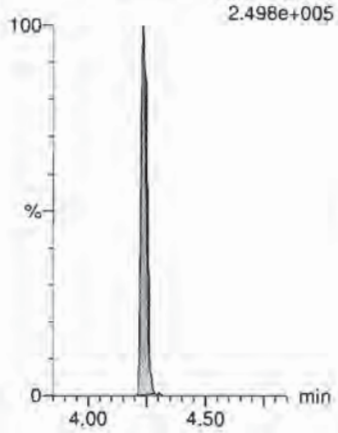

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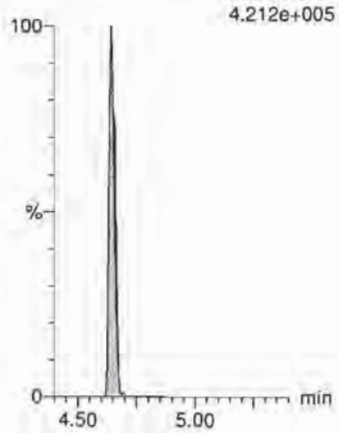

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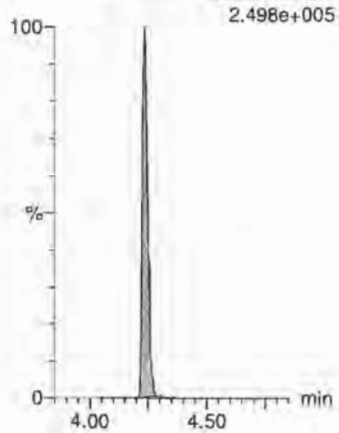

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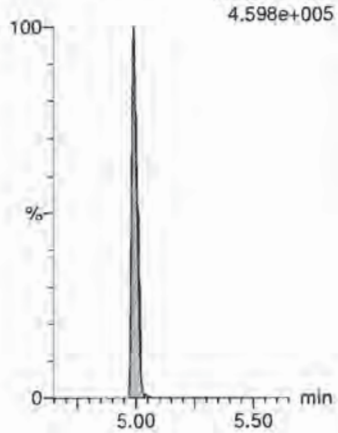

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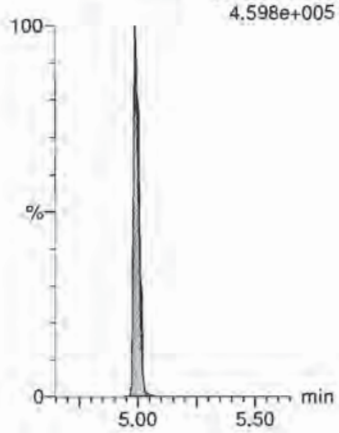

Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-20.qld

Last Altered: Wednesday, July 25, 2018 14:10:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:11:38 Pacific Daylight Time

Name: 180725G1_20, Date: 25-Jul-2018, Time: 12:07:51, ID: ST180725G1-2 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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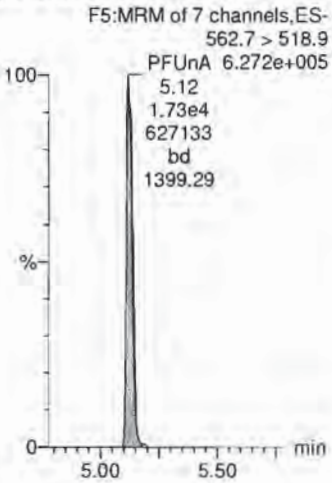

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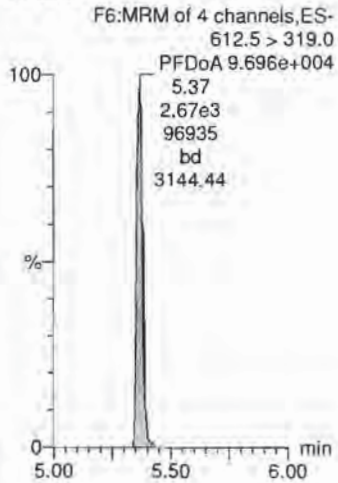

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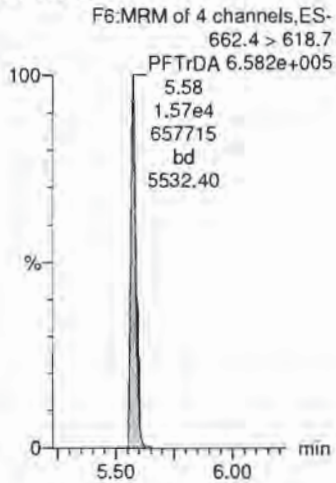

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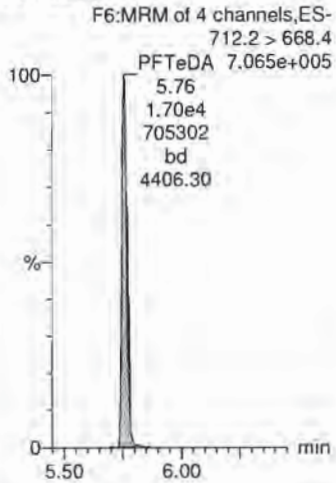

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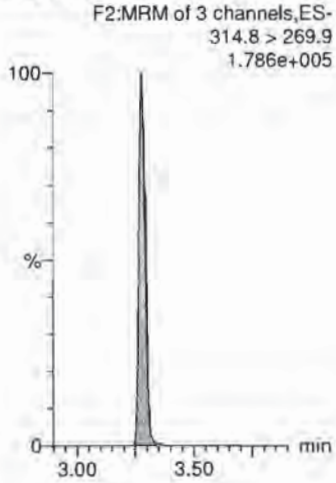

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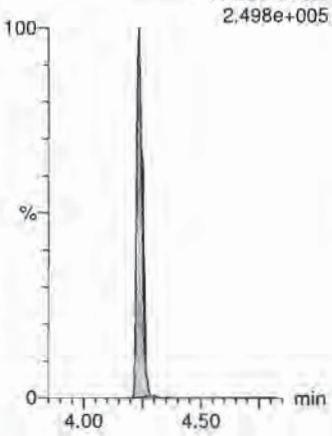

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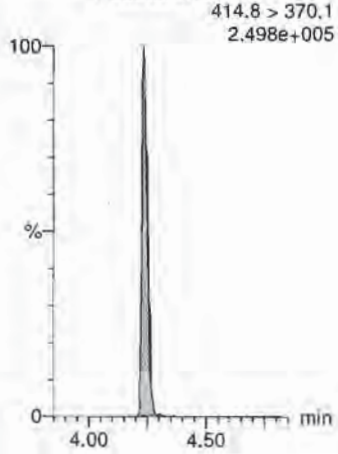

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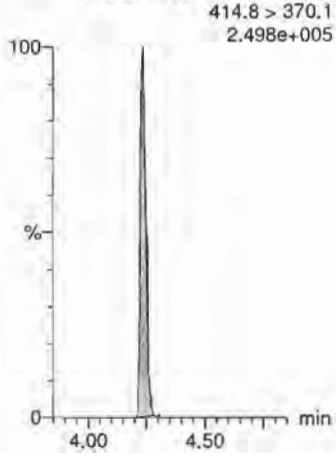

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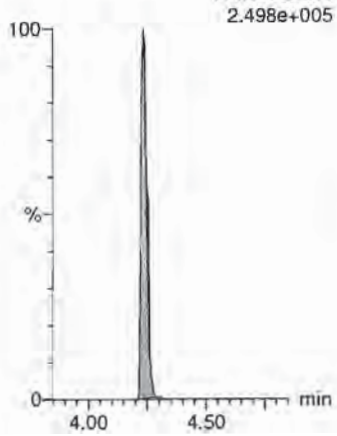

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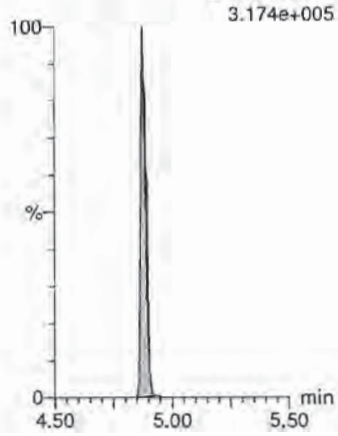
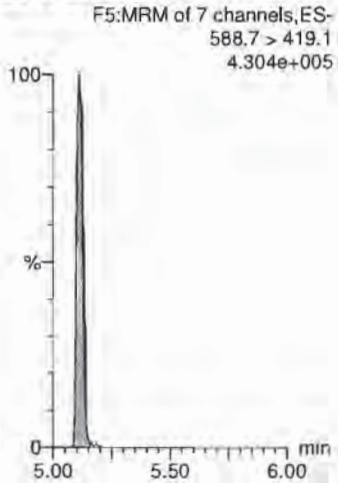


Dataset: X:\G1.PRO\Results\2018\180725G1\180725G1-20.qld

Last Altered: Wednesday, July 25, 2018 14:10:50 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 14:11:38 Pacific Daylight Time

Name: 180725G1_20, Date: 25-Jul-2018, Time: 12:07:51, ID: ST180725G1-2 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

d5-N-EtFOSAA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV)

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Low pt.
MeFOSAA ≈ 0.5
PFDoA ↓
EtFOSAA = 1

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
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VAD 7/20/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999254
Calibration curve: 0.950953 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.222	2.98	79.078	12524.291	0.181	0.2	-14.2	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.444	2.96	189.547	13531.768	0.402	0.4	-4.8	NO	0.999	NO	bb
3	3	180719G3_4	Standard	0.888	2.97	364.822	13253.347	0.790	0.8	-6.4	NO	0.999	NO	bb
4	4	180719G3_5	Standard	1.780	2.97	720.599	13367.935	1.547	1.6	-8.6	NO	0.999	NO	bb
5	5	180719G3_6	Standard	4.440	2.97	1837.066	13104.011	4.023	4.2	-4.7	NO	0.999	NO	bb
6	6	180719G3_7	Standard	8.840	2.97	3401.218	12817.154	7.616	8.0	-9.4	NO	0.999	NO	bd
7	7	180719G3_8	Standard	22.100	2.97	9191.506	13057.182	20.203	21.2	-3.9	NO	0.999	NO	bb
8	8	180719G3_9	Standard	44.200	2.97	18480.521	12535.142	42.312	44.5	0.7	NO	0.999	NO	bb
9	9	180719G3_10	Standard	66.400	2.97	26316.469	11870.359	63.628	66.9	0.8	NO	0.999	NO	bb
10	10	180719G3_11	Standard	88.500	2.97	34910.867	11725.865	85.447	89.9	1.5	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998365
Calibration curve: 0.813355 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	3.35	216.445	9607.558	0.225	0.3	10.8	NO	0.998	NO	MM
2	2	180719G3_3	Standard	0.500	3.35	379.840	10003.517	0.380	0.5	-6.6	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	3.35	727.371	9809.153	0.742	0.9	-8.8	NO	0.998	NO	bb
4	4	180719G3_5	Standard	2.000	3.35	1515.859	9349.009	1.621	2.0	-0.3	NO	0.998	NO	bb
5	5	180719G3_6	Standard	5.000	3.35	3877.906	10233.146	3.790	4.7	-6.8	NO	0.998	NO	MM
6	6	180719G3_7	Standard	10.000	3.35	7255.813	8950.334	8.107	10.0	-0.3	NO	0.998	NO	bd
7	7	180719G3_8	Standard	25.000	3.35	19145.990	9857.262	19.423	23.9	-4.5	NO	0.998	NO	bd
8	8	180719G3_9	Standard	50.000	3.35	37287.813	8593.062	43.393	53.4	6.7	NO	0.998	NO	bd
9	9	180719G3_10	Standard	75.000	3.35	52640.691	8955.572	58.780	72.3	-3.6	NO	0.998	NO	bd
10	10	180719G3_11	Standard	100.000	3.35	71689.805	8728.923	82.129	101.0	1.0	NO	0.998	NO	MM

CAH 7/20/18

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Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998925
Calibration curve: 0.876694 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	3.86	187.909	9607.558	0.196	0.2	-10.8	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.500	3.86	396.545	10003.517	0.396	0.5	-9.6	NO	0.999	NO	MM
3	3	180719G3_4	Standard	1.000	3.86	776.772	9809.153	0.792	0.9	-9.7	NO	0.999	NO	bb
4	4	180719G3_5	Standard	2.000	3.87	1557.671	9349.009	1.666	1.9	-5.0	NO	0.999	NO	MM
5	5	180719G3_6	Standard	5.000	3.86	4098.867	10233.146	4.005	4.6	-8.6	NO	0.999	NO	bb
6	6	180719G3_7	Standard	10.000	3.86	7904.910	8950.334	8.832	10.1	0.7	NO	0.999	NO	bb
7	7	180719G3_8	Standard	25.000	3.86	20082.256	9857.262	20.373	23.2	-7.0	NO	0.999	NO	bb
8	8	180719G3_9	Standard	50.000	3.86	39159.559	8593.062	45.571	52.0	4.0	NO	0.999	NO	bb
9	9	180719G3_10	Standard	75.000	3.86	58417.047	8955.572	65.230	74.4	-0.8	NO	0.999	NO	bd
10	10	180719G3_11	Standard	100.000	3.86	77294.531	8728.923	88.550	101.0	1.0	NO	0.999	NO	bb

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999072
Calibration curve: 1.12898 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.228	3.98	95.875	12524.291	0.220	0.2	-14.6	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.456	3.99	229.626	13531.768	0.487	0.4	-5.4	NO	0.999	NO	MM
3	3	180719G3_4	Standard	0.912	3.98	401.635	13253.347	0.870	0.8	-15.5	NO	0.999	NO	MM
4	4	180719G3_5	Standard	1.820	3.99	833.141	13367.935	1.789	1.6	-12.9	NO	0.999	NO	MM
5	5	180719G3_6	Standard	4.560	3.99	2239.804	13104.011	4.906	4.3	-4.7	NO	0.999	NO	MM
6	6	180719G3_7	Standard	9.120	3.99	4365.842	12817.154	9.776	8.7	-5.1	NO	0.999	NO	MM
7	7	180719G3_8	Standard	22.800	3.98	11084.256	13057.182	24.363	21.6	-5.4	NO	0.999	NO	MM
8	8	180719G3_9	Standard	45.500	3.99	22376.348	12535.142	51.232	45.4	-0.3	NO	0.999	NO	MM
9	9	180719G3_10	Standard	68.200	3.98	32770.844	11870.359	79.233	70.2	2.9	NO	0.999	NO	MM
10	10	180719G3_11	Standard	91.000	3.99	42192.352	11725.865	103.269	91.5	0.5	NO	0.999	NO	MM

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Compound name: PFOA
Coefficient of Determination: R^2 = 0.998834
Calibration curve: 0.729381 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	4.29	181.478	9607.558	0.189	0.3	3.6	NO	0.999	NO	MM
2	2	180719G3_3	Standard	0.500	4.28	345.007	10003.517	0.345	0.5	-5.4	NO	0.999	NO	MM
3	3	180719G3_4	Standard	1.000	4.28	639.844	9809.153	0.652	0.9	-10.6	NO	0.999	NO	MM
4	4	180719G3_5	Standard	2.000	4.29	1299.033	9349.009	1.389	1.9	-4.7	NO	0.999	NO	bb
5	5	180719G3_6	Standard	5.000	4.29	3271.357	10233.146	3.197	4.4	-12.3	NO	0.999	NO	bb
6	6	180719G3_7	Standard	10.000	4.28	6557.385	8950.334	7.326	10.0	0.4	NO	0.999	NO	bd
7	7	180719G3_8	Standard	25.000	4.29	16890.068	9857.262	17.135	23.5	-6.0	NO	0.999	NO	bd
8	8	180719G3_9	Standard	50.000	4.28	32798.785	8593.062	38.169	52.3	4.7	NO	0.999	NO	bd
9	9	180719G3_10	Standard	75.000	4.28	48639.875	8955.572	54.312	74.5	-0.7	NO	0.999	NO	bb
10	10	180719G3_11	Standard	100.000	4.28	63988.535	8728.923	73.306	100.5	0.5	NO	0.999	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998143
Calibration curve: 0.871051 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	4.63	162.474	9607.558	0.169	0.2	-22.3	NO	0.998	NO	MM
2	2	180719G3_3	Standard	0.500	4.65	391.919	10003.517	0.392	0.4	-10.0	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	4.65	782.808	9809.153	0.798	0.9	-8.4	NO	0.998	NO	MM
4	4	180719G3_5	Standard	2.000	4.64	1517.712	9349.009	1.623	1.9	-6.8	NO	0.998	NO	MM
5	5	180719G3_6	Standard	5.000	4.64	4229.869	10233.146	4.133	4.7	-5.1	NO	0.998	NO	bb
6	6	180719G3_7	Standard	10.000	4.64	8167.393	8950.334	9.125	10.5	4.8	NO	0.998	NO	bb
7	7	180719G3_8	Standard	25.000	4.64	19446.463	9857.262	19.728	22.6	-9.4	NO	0.998	NO	bd
8	8	180719G3_9	Standard	50.000	4.64	39672.789	8593.062	46.168	53.0	6.0	NO	0.998	NO	bd
9	9	180719G3_10	Standard	75.000	4.64	58721.949	8955.572	65.570	75.3	0.4	NO	0.998	NO	bd
10	10	180719G3_11	Standard	100.000	4.64	75406.766	8728.923	86.387	99.2	-0.8	NO	0.998	NO	bd

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Compound name: PFOS
Coefficient of Determination: R^2 = 0.996082
Calibration curve: 0.369565 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.232	4.72	12.458	12524.291	0.029	0.1	-66.7	NO	0.996	NO	MMX
2	2	180719G3_3	Standard	0.464	4.70	43.853	13531.768	0.093	0.3	-45.8	NO	0.996	NO	MM
3	3	180719G3_4	Standard	0.928	4.71	116.958	13253.347	0.253	0.7	-26.2	NO	0.996	NO	MM
4	4	180719G3_5	Standard	1.860	4.70	225.042	13367.935	0.483	1.3	-29.7	NO	0.996	NO	MM
5	5	180719G3_6	Standard	4.640	4.71	708.145	13104.011	1.551	4.2	-9.6	NO	0.996	NO	MM
6	6	180719G3_7	Standard	9.240	4.71	1384.264	12817.154	3.100	8.4	-9.2	NO	0.996	NO	MM
7	7	180719G3_8	Standard	23.100	4.71	3532.127	13057.182	7.764	21.0	-9.1	NO	0.996	NO	MM
8	8	180719G3_9	Standard	46.200	4.71	7234.786	12535.142	16.564	44.8	-3.0	NO	0.996	NO	MM
9	9	180719G3_10	Standard	69.400	4.71	10799.025	11870.359	26.110	70.6	1.8	NO	0.996	NO	MM
10	10	180719G3_11	Standard	92.500	4.71	14649.923	11725.865	35.857	97.0	4.9	NO	0.996	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.997051
Calibration curve: 0.871492 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	4.93	246.374	9607.558	0.256	0.3	17.7	NO	0.997	NO	bb
2	2	180719G3_3	Standard	0.500	4.93	446.883	10003.517	0.447	0.5	2.5	NO	0.997	NO	MM
3	3	180719G3_4	Standard	1.000	4.93	805.683	9809.153	0.821	0.9	-5.8	NO	0.997	NO	MM
4	4	180719G3_5	Standard	2.000	4.94	1452.820	9349.009	1.554	1.8	-10.8	NO	0.997	NO	MM
5	5	180719G3_6	Standard	5.000	4.93	4209.125	10233.146	4.113	4.7	-5.6	NO	0.997	NO	bd
6	6	180719G3_7	Standard	10.000	4.93	7819.442	8950.334	8.736	10.0	0.2	NO	0.997	NO	MM
7	7	180719G3_8	Standard	25.000	4.93	19695.555	9857.262	19.981	22.9	-8.3	NO	0.997	NO	bb
8	8	180719G3_9	Standard	50.000	4.94	40205.723	8593.062	46.789	53.7	7.4	NO	0.997	NO	bb
9	9	180719G3_10	Standard	75.000	4.93	55569.367	8955.572	62.050	71.2	-5.1	NO	0.997	NO	bb
10	10	180719G3_11	Standard	100.000	4.93	78094.141	8728.923	89.466	102.7	2.7	NO	0.997	NO	bb

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 1.15659 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	5.05	76.018	14900.215	0.204	0.2	-29.4	NO	0.998	NO	MMX
2	2	180719G3_3	Standard	0.500	5.05	206.538	14917.943	0.554	0.5	-4.2	NO	0.998	NO	MM
3	3	180719G3_4	Standard	1.000	5.05	459.121	15115.812	1.215	1.1	5.0	NO	0.998	NO	MM
4	4	180719G3_5	Standard	2.000	5.04	758.691	16168.233	1.877	1.6	-18.9	NO	0.998	NO	MM
5	5	180719G3_6	Standard	5.000	5.05	2024.494	15822.617	5.118	4.4	-11.5	NO	0.998	NO	MM
6	6	180719G3_7	Standard	10.000	5.05	4261.750	16013.813	10.645	9.2	-8.0	NO	0.998	NO	MM
7	7	180719G3_8	Standard	25.000	5.05	11640.010	15282.137	30.467	26.3	5.4	NO	0.998	NO	MM
8	8	180719G3_9	Standard	50.000	5.05	20775.996	13850.654	60.000	51.9	3.8	NO	0.998	NO	MM
9	9	180719G3_10	Standard	75.000	5.05	33719.148	15249.671	88.446	76.5	2.0	NO	0.998	NO	MM
10	10	180719G3_11	Standard	100.000	5.05	44018.918	15689.659	112.224	97.0	-3.0	NO	0.998	NO	MM

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.994002
Calibration curve: 0.997342 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	0.250	5.17	74.608	14900.215	0.200	0.2	-19.7	NO	0.994	NO	MMX
2	2	180719G3_3	Standard	0.500	5.17	165.411	14917.943	0.444	0.4	-11.1	NO	0.994	NO	bbX
3	3	180719G3_4	Standard	1.000	5.17	233.848	15115.812	0.619	0.6	-38.0	NO	0.994	NO	MM
4	4	180719G3_5	Standard	2.000	5.17	681.068	16168.233	1.685	1.7	-15.5	NO	0.994	NO	MM
5	5	180719G3_6	Standard	5.000	5.17	2023.786	15822.617	5.116	5.1	2.6	NO	0.994	NO	MM
6	6	180719G3_7	Standard	10.000	5.17	3527.098	16013.813	8.810	8.8	-11.7	NO	0.994	NO	MM
7	7	180719G3_8	Standard	25.000	5.17	9761.256	15282.137	25.549	25.6	2.5	NO	0.994	NO	MM
8	8	180719G3_9	Standard	50.000	5.17	19588.977	13850.654	56.572	56.7	13.4	NO	0.994	NO	MM
9	9	180719G3_10	Standard	75.000	5.17	27387.066	15249.671	71.836	72.0	-4.0	NO	0.994	NO	MM
10	10	180719G3_11	Standard	100.000	5.17	38086.531	15689.659	97.100	97.4	-2.6	NO	0.994	NO	MM

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Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998638
Calibration curve: 0.960831 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180719G3_2	Standard	0.250	5.18	153.971	9607.558	0.160	0.2	-33.3	NO	0.999	NO	MM
2	2 180719G3_3	Standard	0.500	5.17	427.723	10003.517	0.428	0.4	-11.0	NO	0.999	NO	MM
3	3 180719G3_4	Standard	1.000	5.18	971.202	9809.153	0.990	1.0	3.0	NO	0.999	NO	MM
4	4 180719G3_5	Standard	2.000	5.18	1726.699	9349.009	1.847	1.9	-3.9	NO	0.999	NO	bb
5	5 180719G3_6	Standard	5.000	5.18	4548.829	10233.146	4.445	4.6	-7.5	NO	0.999	NO	MM
6	6 180719G3_7	Standard	10.000	5.18	8827.076	8950.334	9.862	10.3	2.6	NO	0.999	NO	bd
7	7 180719G3_8	Standard	25.000	5.18	22062.658	9857.262	22.382	23.3	-6.8	NO	0.999	NO	bb
8	8 180719G3_9	Standard	50.000	5.18	43424.051	8593.062	50.534	52.6	5.2	NO	0.999	NO	bd
9	9 180719G3_10	Standard	75.000	5.17	63418.094	8955.572	70.814	73.7	-1.7	NO	0.999	NO	bb
10	10 180719G3_11	Standard	100.000	5.17	84461.789	8728.923	96.761	100.7	0.7	NO	0.999	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.146969 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180719G3_2	Standard	0.250	5.40	13.889	9607.558	0.014	0.1	-60.7	NO	0.998	NO	MMX
2	2 180719G3_3	Standard	0.500	5.41	73.771	10003.517	0.074	0.5	0.4	NO	0.998	NO	MM
3	3 180719G3_4	Standard	1.000	5.42	115.337	9809.153	0.118	0.8	-20.0	NO	0.998	NO	bb
4	4 180719G3_5	Standard	2.000	5.41	279.361	9349.009	0.299	2.0	1.7	NO	0.998	NO	bb
5	5 180719G3_6	Standard	5.000	5.41	669.160	10233.146	0.654	4.4	-11.0	NO	0.998	NO	MM
6	6 180719G3_7	Standard	10.000	5.41	1424.345	8950.334	1.591	10.8	8.3	NO	0.998	NO	bb
7	7 180719G3_8	Standard	25.000	5.41	3396.192	9857.262	3.445	23.4	-6.2	NO	0.998	NO	bd
8	8 180719G3_9	Standard	50.000	5.40	6682.467	8593.062	7.777	52.9	5.8	NO	0.998	NO	bb
9	9 180719G3_10	Standard	75.000	5.41	9891.307	8955.572	11.045	75.2	0.2	NO	0.998	NO	bd
10	10 180719G3_11	Standard	100.000	5.41	12621.056	8728.923	14.459	98.4	-1.6	NO	0.998	NO	bd

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998349
Calibration curve: 0.90204 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180719G3_2	Standard	0.250	5.61	191.945	9607.558	0.200	0.2	-11.4	NO	0.998	NO	bb
2	2 180719G3_3	Standard	0.500	5.62	387.261	10003.517	0.387	0.4	-14.2	NO	0.998	NO	bb
3	3 180719G3_4	Standard	1.000	5.62	810.357	9809.153	0.826	0.9	-8.4	NO	0.998	NO	bd
4	4 180719G3_5	Standard	2.000	5.62	1478.241	9349.009	1.581	1.8	-12.4	NO	0.998	NO	bd
5	5 180719G3_6	Standard	5.000	5.62	4290.086	10233.146	4.192	4.6	-7.0	NO	0.998	NO	bd
6	6 180719G3_7	Standard	10.000	5.62	8479.044	8950.334	9.473	10.5	5.0	NO	0.998	NO	bb
7	7 180719G3_8	Standard	25.000	5.62	20581.932	9857.262	20.880	23.1	-7.4	NO	0.998	NO	bd
8	8 180719G3_9	Standard	50.000	5.62	40755.762	8593.062	47.429	52.6	5.2	NO	0.998	NO	bd
9	9 180719G3_10	Standard	75.000	5.62	59213.352	8955.572	66.119	73.3	-2.3	NO	0.998	NO	bd
10	10 180719G3_11	Standard	100.000	5.62	79726.117	8728.923	91.336	101.3	1.3	NO	0.998	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997347
Calibration curve: 0.926257 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180719G3_2	Standard	0.250	5.80	218.061	9607.558	0.227	0.2	-2.0	NO	0.997	NO	MM
2	2 180719G3_3	Standard	0.500	5.80	387.098	10003.517	0.387	0.4	-16.4	NO	0.997	NO	bb
3	3 180719G3_4	Standard	1.000	5.80	812.033	9809.153	0.828	0.9	-10.6	NO	0.997	NO	bd
4	4 180719G3_5	Standard	2.000	5.80	1446.245	9349.009	1.547	1.7	-16.5	NO	0.997	NO	bb
5	5 180719G3_6	Standard	5.000	5.81	4341.288	10233.146	4.242	4.6	-8.4	NO	0.997	NO	bd
6	6 180719G3_7	Standard	10.000	5.81	8295.102	8950.334	9.268	10.0	0.1	NO	0.997	NO	bd
7	7 180719G3_8	Standard	25.000	5.81	20309.916	9857.262	20.604	22.2	-11.0	NO	0.997	NO	bb
8	8 180719G3_9	Standard	50.000	5.81	42703.285	8593.062	49.695	53.7	7.3	NO	0.997	NO	bd
9	9 180719G3_10	Standard	75.000	5.80	62209.750	8955.572	69.465	75.0	-0.0	NO	0.997	NO	bd
10	10 180719G3_11	Standard	100.000	5.81	80889.742	8728.923	92.669	100.0	0.0	NO	0.997	NO	bb

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

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Compound name: 13C2-PFHxA
Response Factor: 0.752548
RRF SD: 0.0282691, Relative SD: 3.75644
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	10.000	3.34	7295.154	9607.558	7.593	10.1	0.9	NO		NO	bb
2	2	180719G3_3	Standard	10.000	3.34	7414.530	10003.517	7.412	9.8	-1.5	NO		NO	bd
3	3	180719G3_4	Standard	10.000	3.35	6825.012	9809.153	6.958	9.2	-7.5	NO		NO	bb
4	4	180719G3_5	Standard	10.000	3.35	7061.073	9349.009	7.553	10.0	0.4	NO		NO	bd
5	5	180719G3_6	Standard	10.000	3.35	7502.231	10233.146	7.331	9.7	-2.6	NO		NO	bb
6	6	180719G3_7	Standard	10.000	3.35	7030.619	8950.334	7.855	10.4	4.4	NO		NO	bd
7	7	180719G3_8	Standard	10.000	3.35	7291.253	9857.262	7.397	9.8	-1.7	NO		NO	bb
8	8	180719G3_9	Standard	10.000	3.35	6842.353	8593.062	7.963	10.6	5.8	NO		NO	bb
9	9	180719G3_10	Standard	10.000	3.34	6726.779	8955.572	7.511	10.0	-0.2	NO		NO	bd
10	10	180719G3_11	Standard	10.000	3.35	6705.550	8728.923	7.682	10.2	2.1	NO		NO	bb

Compound name: 13C2-PFDA
Response Factor: 1.02262
RRF SD: 0.0455983, Relative SD: 4.45898
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	10.000	4.94	10188.513	9607.558	10.605	10.4	3.7	NO		NO	bd
2	2	180719G3_3	Standard	10.000	4.93	10494.740	10003.517	10.491	10.3	2.6	NO		NO	bd
3	3	180719G3_4	Standard	10.000	4.93	10018.575	9809.153	10.213	10.0	-0.1	NO		NO	bd
4	4	180719G3_5	Standard	10.000	4.93	9721.604	9349.009	10.399	10.2	1.7	NO		NO	bb
5	5	180719G3_6	Standard	10.000	4.93	9540.815	10233.146	9.323	9.1	-8.8	NO		NO	bb
6	6	180719G3_7	Standard	10.000	4.93	9415.412	8950.334	10.520	10.3	2.9	NO		NO	bd
7	7	180719G3_8	Standard	10.000	4.93	9558.210	9857.262	9.697	9.5	-5.2	NO		NO	bd
8	8	180719G3_9	Standard	10.000	4.93	9224.771	8593.062	10.735	10.5	5.0	NO		NO	bd
9	9	180719G3_10	Standard	10.000	4.93	8817.560	8955.572	9.846	9.6	-3.7	NO		NO	bb
10	10	180719G3_11	Standard	10.000	4.93	9107.061	8728.923	10.433	10.2	2.0	NO		NO	bd

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

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Compound name: d5-N-EtFOSAA
Response Factor: 1.2642
RRF SD: 0.0944702, Relative SD: 7.47271
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	40.000	5.17	19521.926	14900.215	52.407	41.5	3.6	NO		NO	bd
2	2	180719G3_3	Standard	40.000	5.16	20995.799	14917.943	56.297	44.5	11.3	NO		NO	MM
3	3	180719G3_4	Standard	40.000	5.16	20424.537	15115.812	54.048	42.8	6.9	NO		NO	bb
4	4	180719G3_5	Standard	40.000	5.17	19734.184	16168.233	48.822	38.6	-3.5	NO		NO	bb
5	5	180719G3_6	Standard	40.000	5.16	18281.092	15822.617	46.215	36.6	-8.6	NO		NO	MM
6	6	180719G3_7	Standard	40.000	5.17	20019.535	16013.813	50.006	39.6	-1.1	NO		NO	bd
7	7	180719G3_8	Standard	40.000	5.17	20064.123	15282.137	52.517	41.5	3.9	NO		NO	bb
8	8	180719G3_9	Standard	40.000	5.16	18369.805	13850.654	53.051	42.0	4.9	NO		NO	bd
9	9	180719G3_10	Standard	40.000	5.16	18409.029	15249.671	48.287	38.2	-4.5	NO		NO	bb
10	10	180719G3_11	Standard	40.000	5.16	17271.014	15689.659	44.032	34.8	-12.9	NO		NO	bd

Compound name: 13C2-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	10.000	4.28	9607.558	9607.558	10.000	10.0	0.0	NO		NO	bd
2	2	180719G3_3	Standard	10.000	4.28	10003.517	10003.517	10.000	10.0	0.0	NO		NO	bb
3	3	180719G3_4	Standard	10.000	4.28	9809.153	9809.153	10.000	10.0	0.0	NO		NO	MM
4	4	180719G3_5	Standard	10.000	4.28	9349.009	9349.009	10.000	10.0	0.0	NO		NO	MM
5	5	180719G3_6	Standard	10.000	4.29	10233.146	10233.146	10.000	10.0	0.0	NO		NO	bd
6	6	180719G3_7	Standard	10.000	4.28	8950.334	8950.334	10.000	10.0	0.0	NO		NO	bd
7	7	180719G3_8	Standard	10.000	4.29	9857.262	9857.262	10.000	10.0	0.0	NO		NO	bb
8	8	180719G3_9	Standard	10.000	4.28	8593.062	8593.062	10.000	10.0	0.0	NO		NO	bb
9	9	180719G3_10	Standard	10.000	4.28	8955.572	8955.572	10.000	10.0	0.0	NO		NO	bd
10	10	180719G3_11	Standard	10.000	4.28	8728.923	8728.923	10.000	10.0	0.0	NO		NO	bd

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Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	28.700	4.71	12524.291	12524.291	28.700	28.7	0.0	NO		NO	bd
2	2	180719G3_3	Standard	28.700	4.71	13531.768	13531.768	28.700	28.7	0.0	NO		NO	bb
3	3	180719G3_4	Standard	28.700	4.71	13253.347	13253.347	28.700	28.7	0.0	NO		NO	bb
4	4	180719G3_5	Standard	28.700	4.71	13367.935	13367.935	28.700	28.7	0.0	NO		NO	bb
5	5	180719G3_6	Standard	28.700	4.71	13104.011	13104.011	28.700	28.7	0.0	NO		NO	bd
6	6	180719G3_7	Standard	28.700	4.71	12817.154	12817.154	28.700	28.7	0.0	NO		NO	bd
7	7	180719G3_8	Standard	28.700	4.71	13057.182	13057.182	28.700	28.7	0.0	NO		NO	bb
8	8	180719G3_9	Standard	28.700	4.71	12535.142	12535.142	28.700	28.7	0.0	NO		NO	bd
9	9	180719G3_10	Standard	28.700	4.71	11870.359	11870.359	28.700	28.7	0.0	NO		NO	bd
10	10	180719G3_11	Standard	28.700	4.71	11725.865	11725.865	28.700	28.7	0.0	NO		NO	bd

Compound name: d3-N-MeFOSAA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180719G3_2	Standard	40.000	5.04	14900.215	14900.215	40.000	40.0	0.0	NO		NO	bb
2	2	180719G3_3	Standard	40.000	5.04	14917.943	14917.943	40.000	40.0	0.0	NO		NO	bb
3	3	180719G3_4	Standard	40.000	5.04	15115.812	15115.812	40.000	40.0	0.0	NO		NO	bd
4	4	180719G3_5	Standard	40.000	5.04	16168.233	16168.233	40.000	40.0	0.0	NO		NO	bd
5	5	180719G3_6	Standard	40.000	5.04	15822.617	15822.617	40.000	40.0	0.0	NO		NO	bd
6	6	180719G3_7	Standard	40.000	5.04	16013.813	16013.813	40.000	40.0	0.0	NO		NO	bd
7	7	180719G3_8	Standard	40.000	5.04	15282.137	15282.137	40.000	40.0	0.0	NO		NO	bd
8	8	180719G3_9	Standard	40.000	5.05	13850.654	13850.654	40.000	40.0	0.0	NO		NO	bd
9	9	180719G3_10	Standard	40.000	5.04	15249.671	15249.671	40.000	40.0	0.0	NO		NO	bd
10	10	180719G3_11	Standard	40.000	5.04	15689.659	15689.659	40.000	40.0	0.0	NO		NO	bb

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:16 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBS	19	0.9993	NO	
2	2	PFHxA	18	0.9984	NO	
3	3	PFHpA	18	0.9989	NO	
4	4	PFHxS	19	0.9991	NO	
5	5	PFOA	18	0.9988	NO	
6	6	PFNA	18	0.9981	NO	
7	7	PFOS	19	0.9961	NO	
8	8	PFDA	18	0.9971	NO	
9	9	N-MeFOSAA	20	0.9981	NO	
10	10	N-EtFOSAA	20	0.9940	NO	
11	11	PFUnA	18	0.9986	NO	
12	12	PFDoA	18	0.9981	NO	
13	13	PFTrDA	18	0.9983	NO	
14	14	PFTeDA	18	0.9973	NO	
15	15	13C2-PFHxA	18		NO	3.756
16	16	13C2-PFDA	18		NO	4.459
17	17	d5-N-EtFOSAA	20		NO	7.473
18	18	13C2-PFOA	18		NO	0.000
19	19	13C4-PFOS	19		NO	0.000
20	20	d3-N-MeFOSAA	20		NO	0.000

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, July 20, 2018 11:22:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 11:23:00 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 10:51:38

Compound name: PFBS

	# Name	ID	Acq.Date	Acq.Time
1	1 180719G3_1	IPA	19-Jul-18	14:50:42
2	2 180719G3_2	ST180719G3-1 PFC CS-4 537 18G1801	19-Jul-18	15:03:28
3	3 180719G3_3	ST180719G3-2 PFC CS-3 537 18G1802	19-Jul-18	15:16:17
4	4 180719G3_4	ST180719G3-3 PFC CS-2 537 18G1803	19-Jul-18	15:29:06
5	5 180719G3_5	ST180719G3-4 PFC CS-1 537 18G1804	19-Jul-18	15:41:56
6	6 180719G3_6	ST180719G3-5 PFC CS0 537 18G1805	19-Jul-18	15:54:41
7	7 180719G3_7	ST180719G3-6 PFC CS1 537 18G1806	19-Jul-18	16:07:29
8	8 180719G3_8	ST180719G3-7 PFC CS2 537 18G1807	19-Jul-18	16:20:19
9	9 180719G3_9	ST180719G3-8 PFC CS3 537 18G1808	19-Jul-18	16:33:10
10	10 180719G3_10	ST180719G3-9 PFC CS4 537 18G1809	19-Jul-18	16:45:58
11	11 180719G3_11	ST180719G3-10 PFC CS5 537 18G1810	19-Jul-18	16:58:48
12	12 180719G3_12	IPA	19-Jul-18	17:11:52
13	13 180719G3_13	ST180719G3-1 PFC ICV 537 18G1811	19-Jul-18	17:24:26
14	14 180719G3_14	IPA	19-Jul-18	17:37:16

ICAL

Compound 18: 13C2-PFOA

high	10233.15	RPD
low	8593.062	17.42

	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	10	4.28	9607.558	9607.558	10	MM
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	10	4.28	10003.52	10003.52	10	MM
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	10	4.28	9767.989	9767.989	10	MM
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	10	4.28	9289.855	9289.855	10	MM
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	10	4.29	10233.15	10233.15	10	MM
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	10	4.28	8950.334	8950.334	10	MM
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	10	4.29	9857.262	9857.262	10	MM
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	10	4.28	8593.062	8593.062	10	MM
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	10	4.28	8955.572	8955.572	10	MM
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	10	4.28	8728.923	8728.923	10	MM
							average		
							9398.72		

Compound 19: 13C4-PFOS

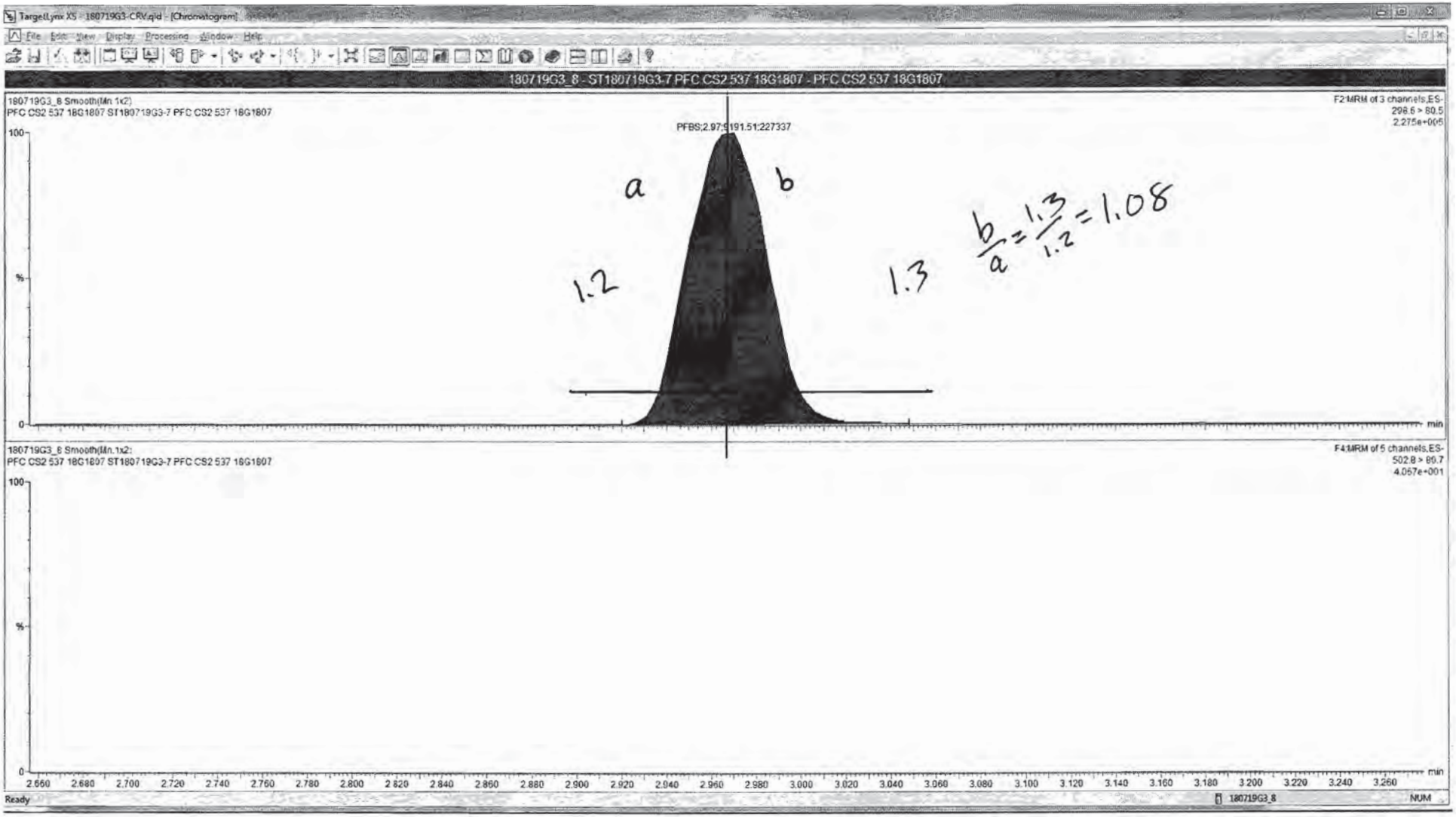
high	13531.77	RPD
low	11725.87	14.30

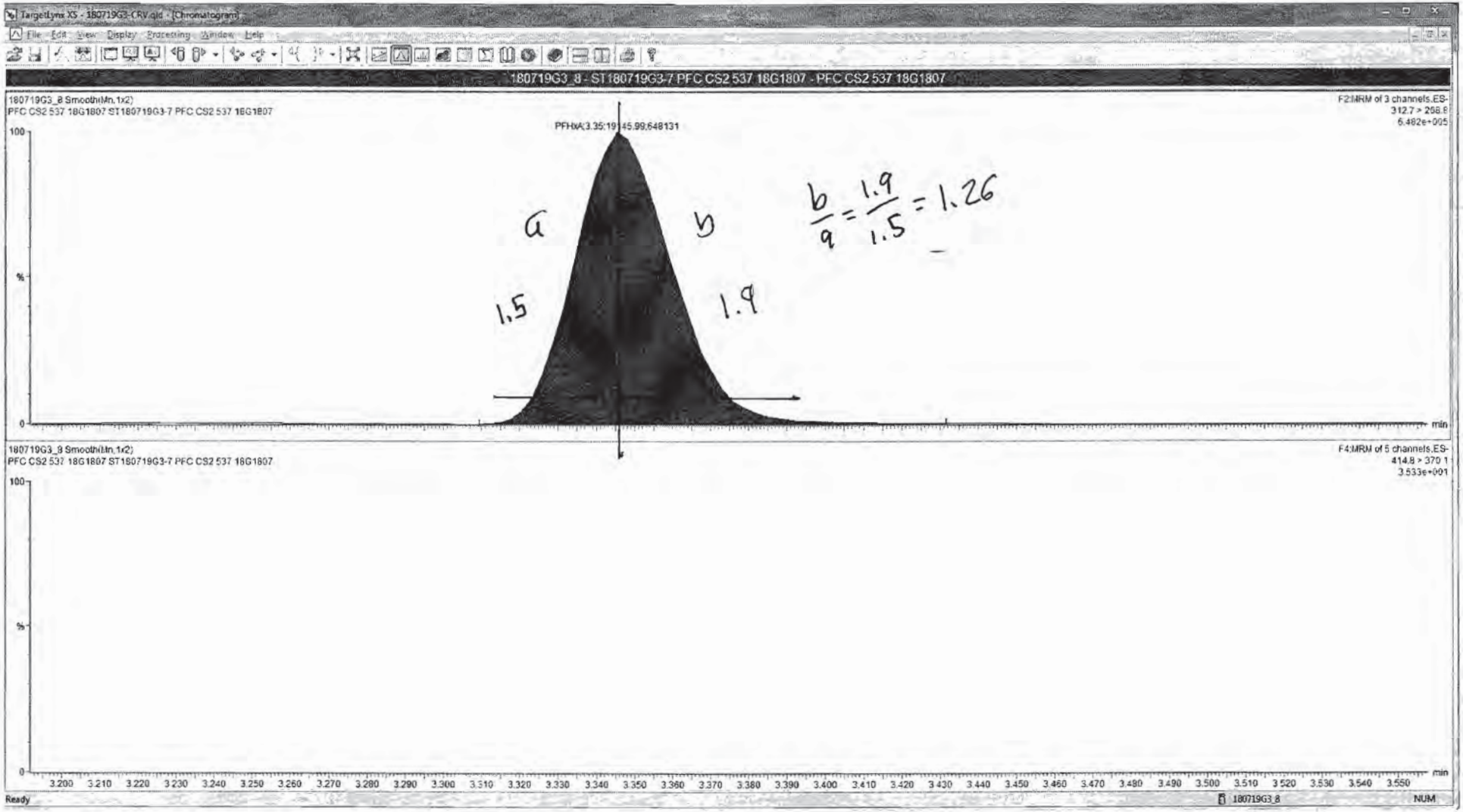
	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	28.7	4.71	12524.29	12524.29	28.7	bd
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	28.7	4.71	13531.77	13531.77	28.7	bb
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	28.7	4.71	13253.35	13253.35	28.7	bb
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	28.7	4.71	13367.94	13367.94	28.7	bb
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	28.7	4.71	13104.01	13104.01	28.7	bd
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	28.7	4.71	12817.15	12817.15	28.7	bd
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	28.7	4.71	13057.18	13057.18	28.7	bb
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	28.7	4.71	12535.14	12535.14	28.7	bd
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	28.7	4.71	11870.36	11870.36	28.7	bd
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	28.7	4.71	11725.87	11725.87	28.7	bd
							average		
							12778.71		

Compound 20: d3-N-MeFOSAA

high	16168.23	RPD
low	13850.65	15.44

	ID	Name	Type	Std. Cor RT		Area	IS Area	Response	Primary Flags
1	ST180719G3-1 PFC CS-4 537 18G1801	180719G3_2	Standard	40	5.04	14900.22	14900.22	40	bb
2	ST180719G3-2 PFC CS-3 537 18G1802	180719G3_3	Standard	40	5.04	14917.94	14917.94	40	bb
3	ST180719G3-3 PFC CS-2 537 18G1803	180719G3_4	Standard	40	5.04	15115.81	15115.81	40	bd
4	ST180719G3-4 PFC CS-1 537 18G1804	180719G3_5	Standard	40	5.04	16168.23	16168.23	40	bd
5	ST180719G3-5 PFC CS0 537 18G1805	180719G3_6	Standard	40	5.04	15822.62	15822.62	40	bd
6	ST180719G3-6 PFC CS1 537 18G1806	180719G3_7	Standard	40	5.04	16013.81	16013.81	40	bd
7	ST180719G3-7 PFC CS2 537 18G1807	180719G3_8	Standard	40	5.04	15282.14	15282.14	40	bd
8	ST180719G3-8 PFC CS3 537 18G1808	180719G3_9	Standard	40	5.05	13850.65	13850.65	40	bd
9	ST180719G3-9 PFC CS4 537 18G1809	180719G3_10	Standard	40	5.04	15249.67	15249.67	40	bd
10	ST180719G3-10 PFC CS5 537 18G1810	180719G3_11	Standard	40	5.04	15689.66	15689.66	40	bb
							average		
							15301.08		


TargetLynx XS - 180719G3-CRV.qid - [Chromatogram]
File Edit View Display Processing Window Help
180719G3_8 - ST180719G3-7 PFC CS2 537 18G1807 - PFC CS2 537 18G1807
180719G3_8 Smooth(Mn 1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F2:MRM of 3 channels,ES-
298.6 > 80.5
2.275e+005
PFBS;2.97;9191.51;227337
a
b
1.2
1.3
b/a = 1.3/1.2 = 1.08
100
%
0
min
180719G3_8 Smooth(Mn 1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F4:MRM of 5 channels,ES-
502.8 > 80.7
4.067e+001
2.660 2.680 2.700 2.720 2.740 2.760 2.780 2.800 2.820 2.840 2.860 2.880 2.900 2.920 2.940 2.960 2.980 3.000 3.020 3.040 3.060 3.080 3.100 3.120 3.140 3.160 3.180 3.200 3.220 3.240 3.260
Ready
180719G3_8
NUM


TargetLynx XS - 180719G3-CRV.qld - [Chromatogram]
File Edit View Display Processing Window Help
180719G3_8 - ST180719G3-7 PFC CS2 537 18G1807 - PFC CS2 537 18G1807
180719G3_8 Smooth(Mn,1x2)
PFC CS2 537 18G1807 ST180719G3-7 PFC CS2 537 18G1807
F2:MRM of 3 channels,ES-
312.7 > 258.8
6.482e+005
PFHxA(3.35:19:45.99,648131
a
b
1.5
1.9
b/a = 1.9/1.5 = 1.26
100
%
0
min
F4:MRM of 5 channels,ES-
414.8 > 370.1
3.533e+001
3.200 3.210 3.220 3.230 3.240 3.250 3.260 3.270 3.280 3.290 3.300 3.310 3.320 3.330 3.340 3.350 3.360 3.370 3.380 3.390 3.400 3.410 3.420 3.430 3.440 3.450 3.460 3.470 3.480 3.490 3.500 3.510 3.520 3.530 3.540 3.550
Ready
180719G3_8
NUM

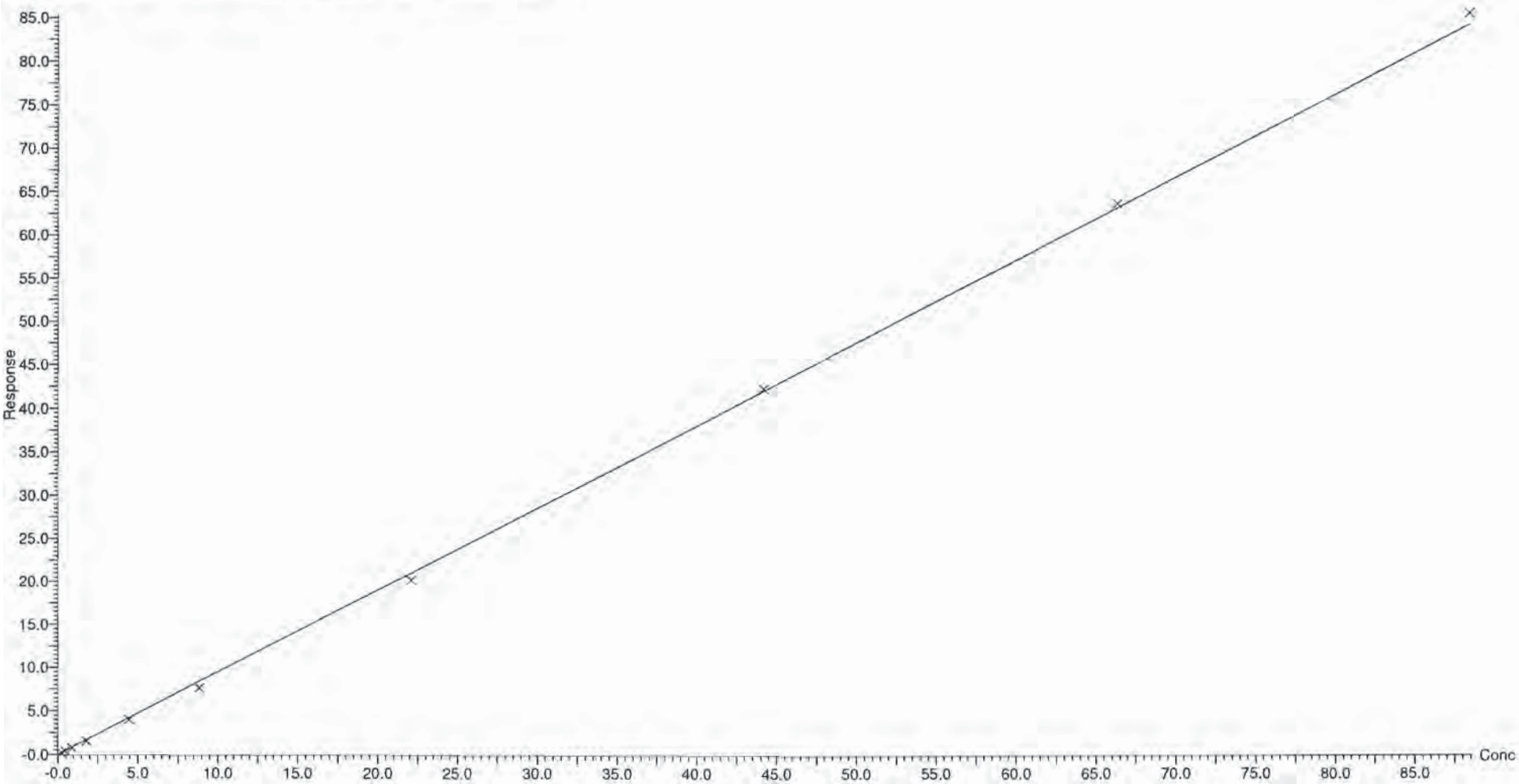
Vista Analytical Laboratory Q1

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

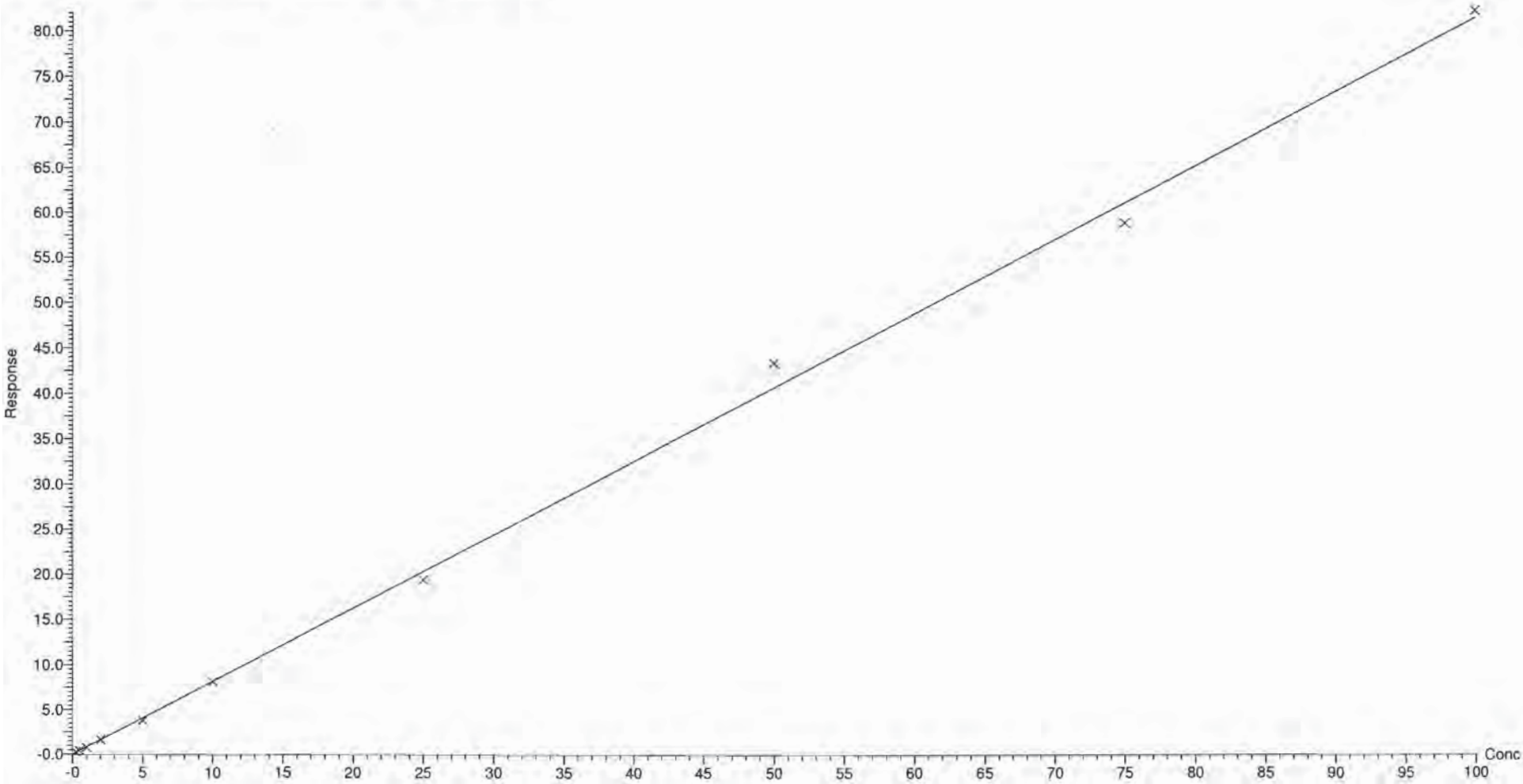
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999254
Calibration curve: 0.950953 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998365
Calibration curve: 0.813355 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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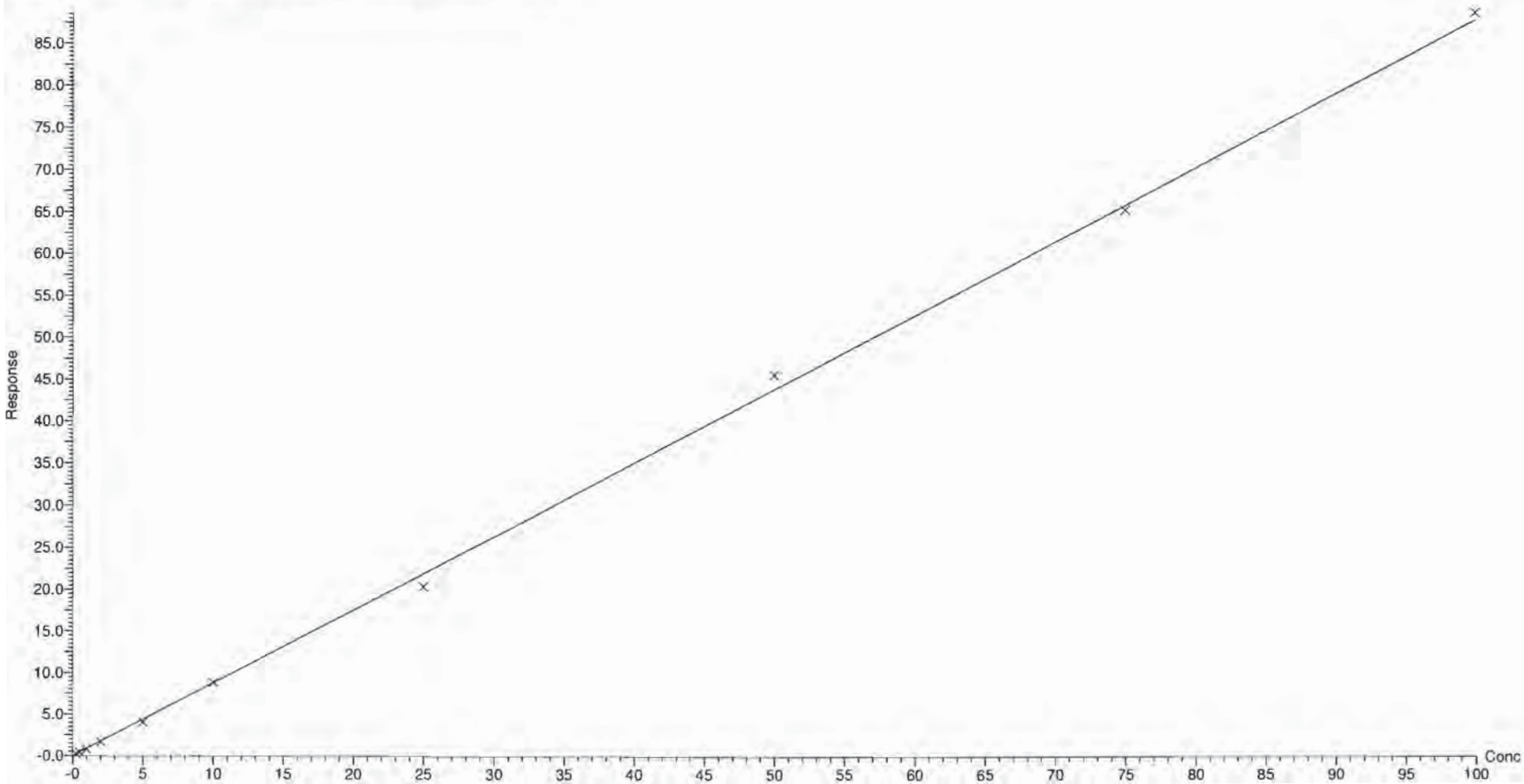
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

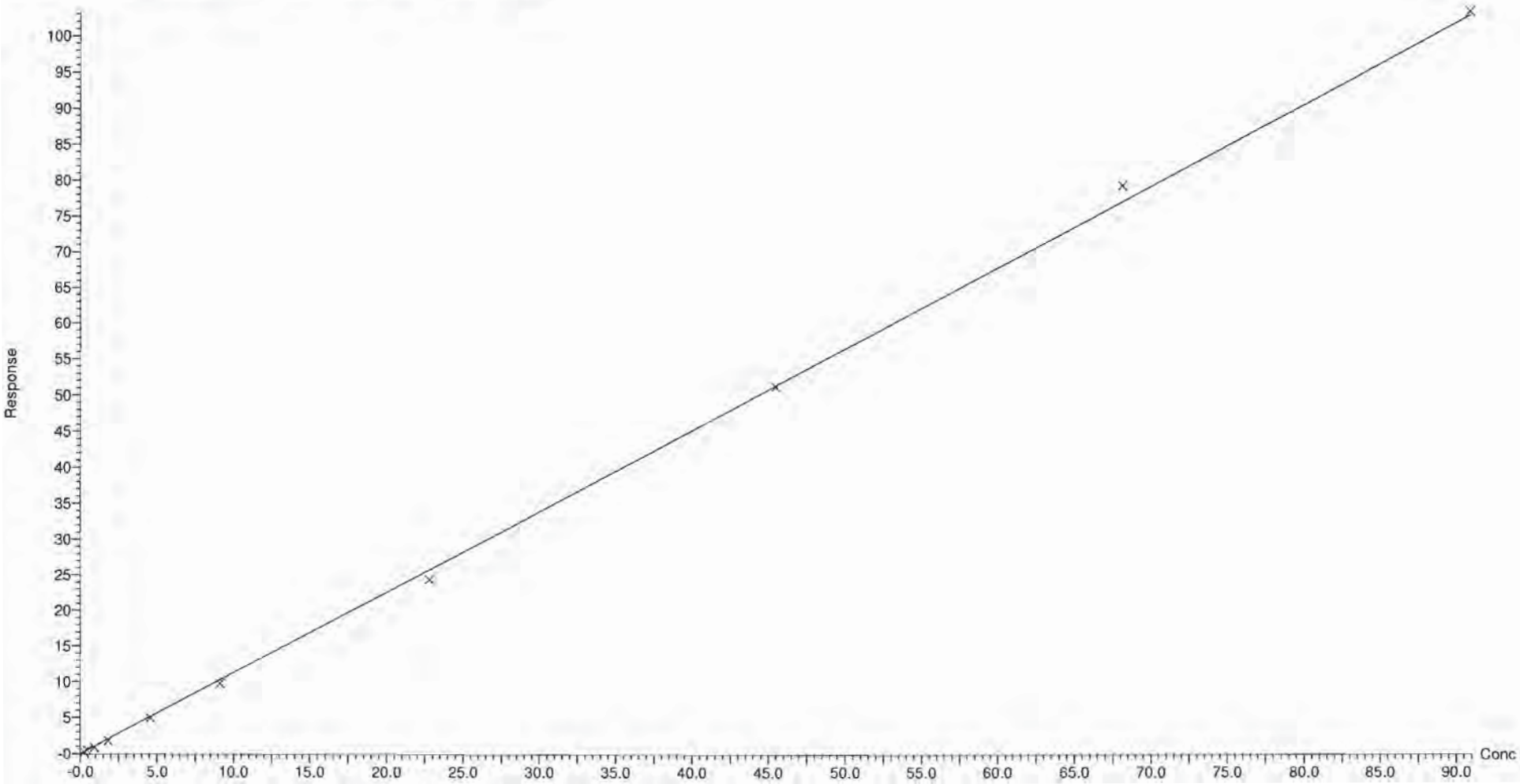
Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998925
Calibration curve: 0.876694 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999072
Calibration curve: 1.12898 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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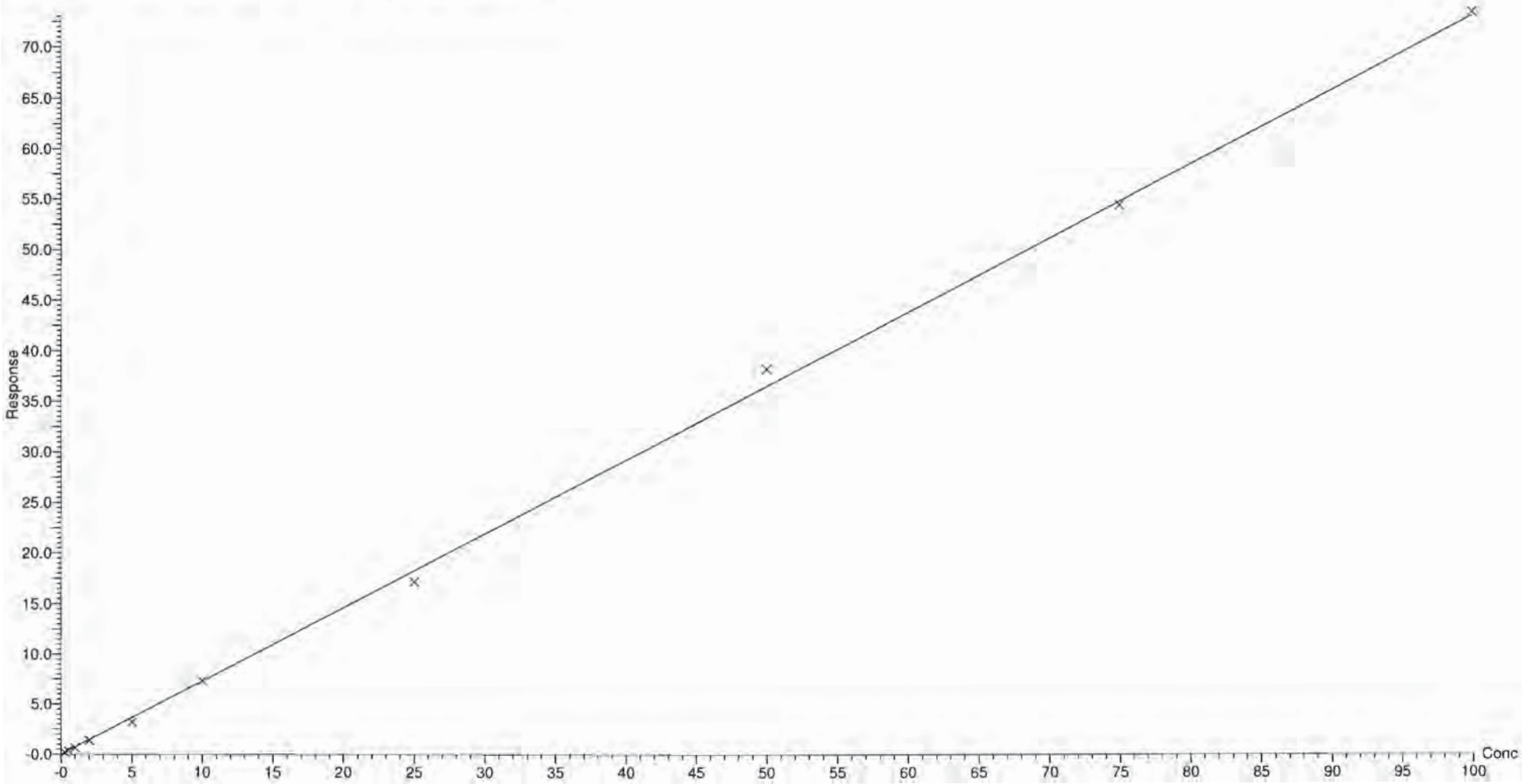
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998834
Calibration curve: 0.729381 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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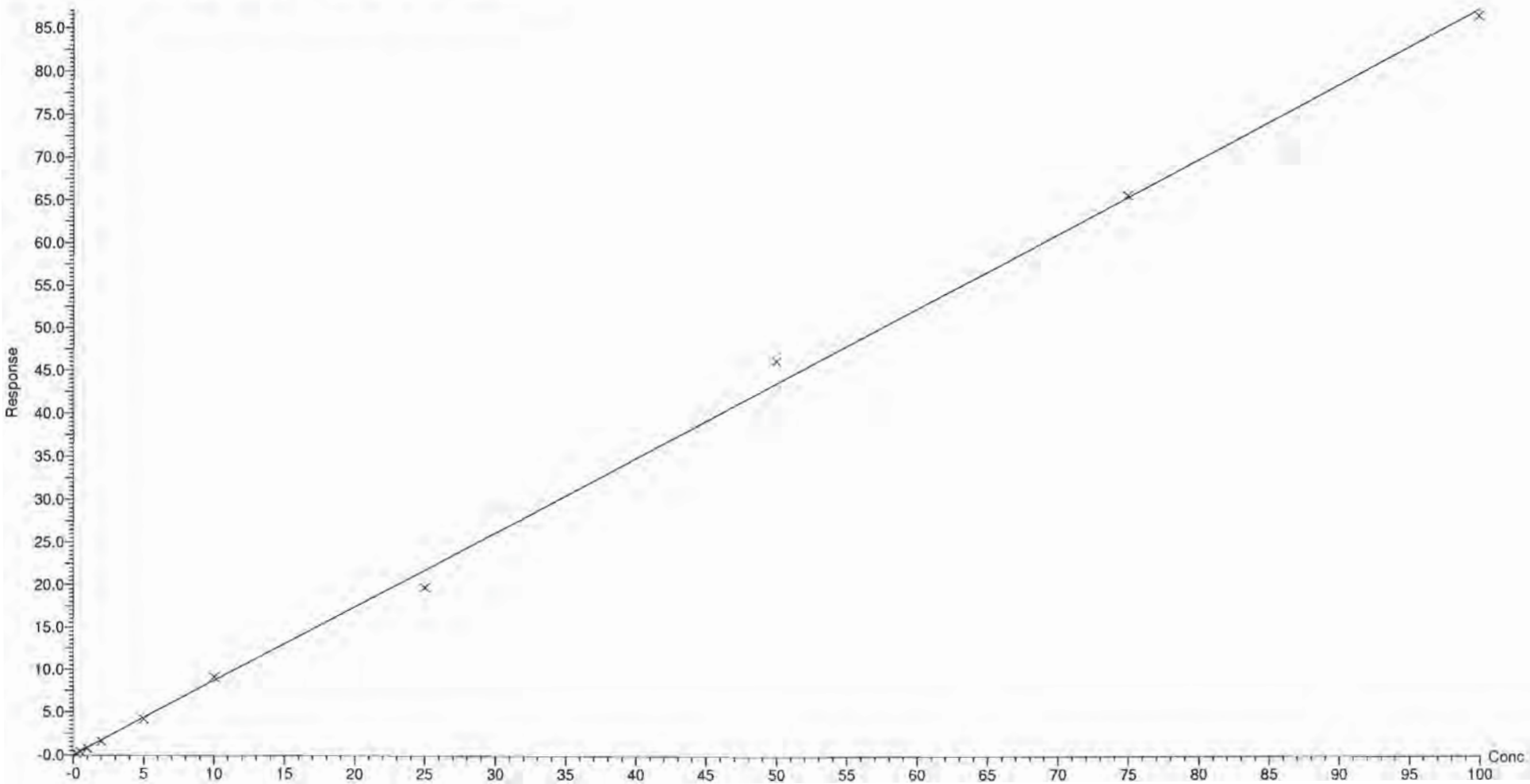
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998143
Calibration curve: 0.871051 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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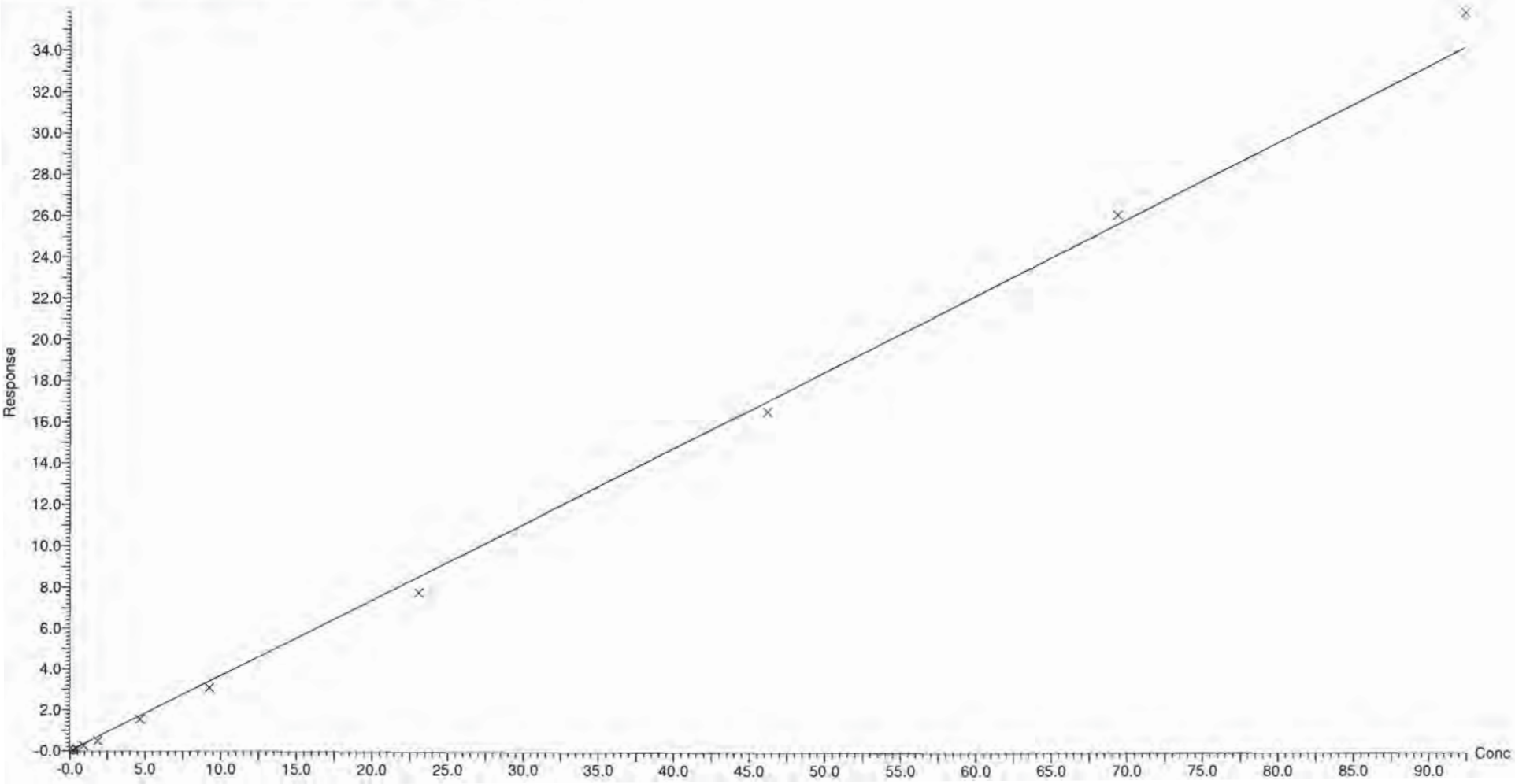
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.996082
Calibration curve: 0.369565 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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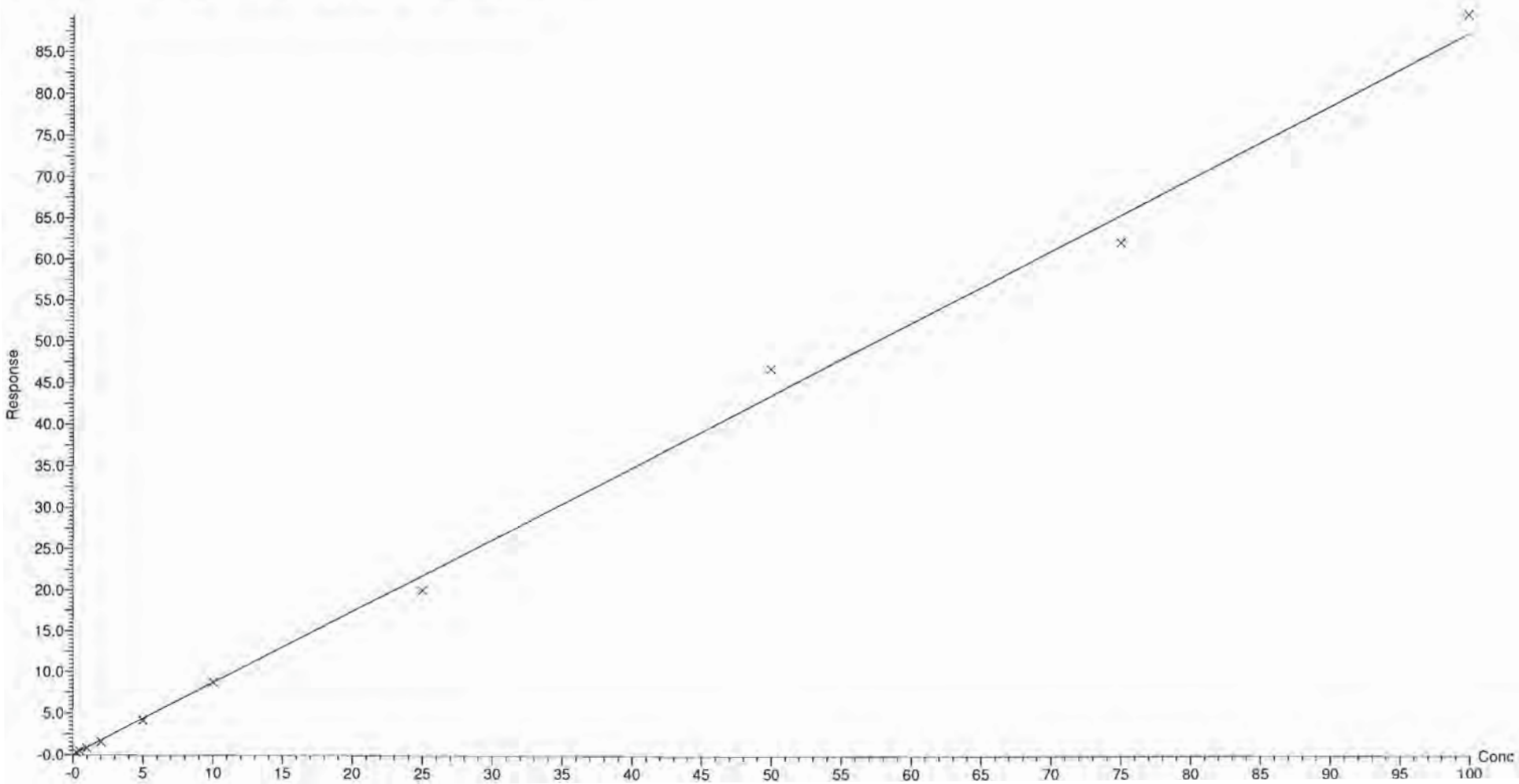
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.997051
Calibration curve: 0.871492 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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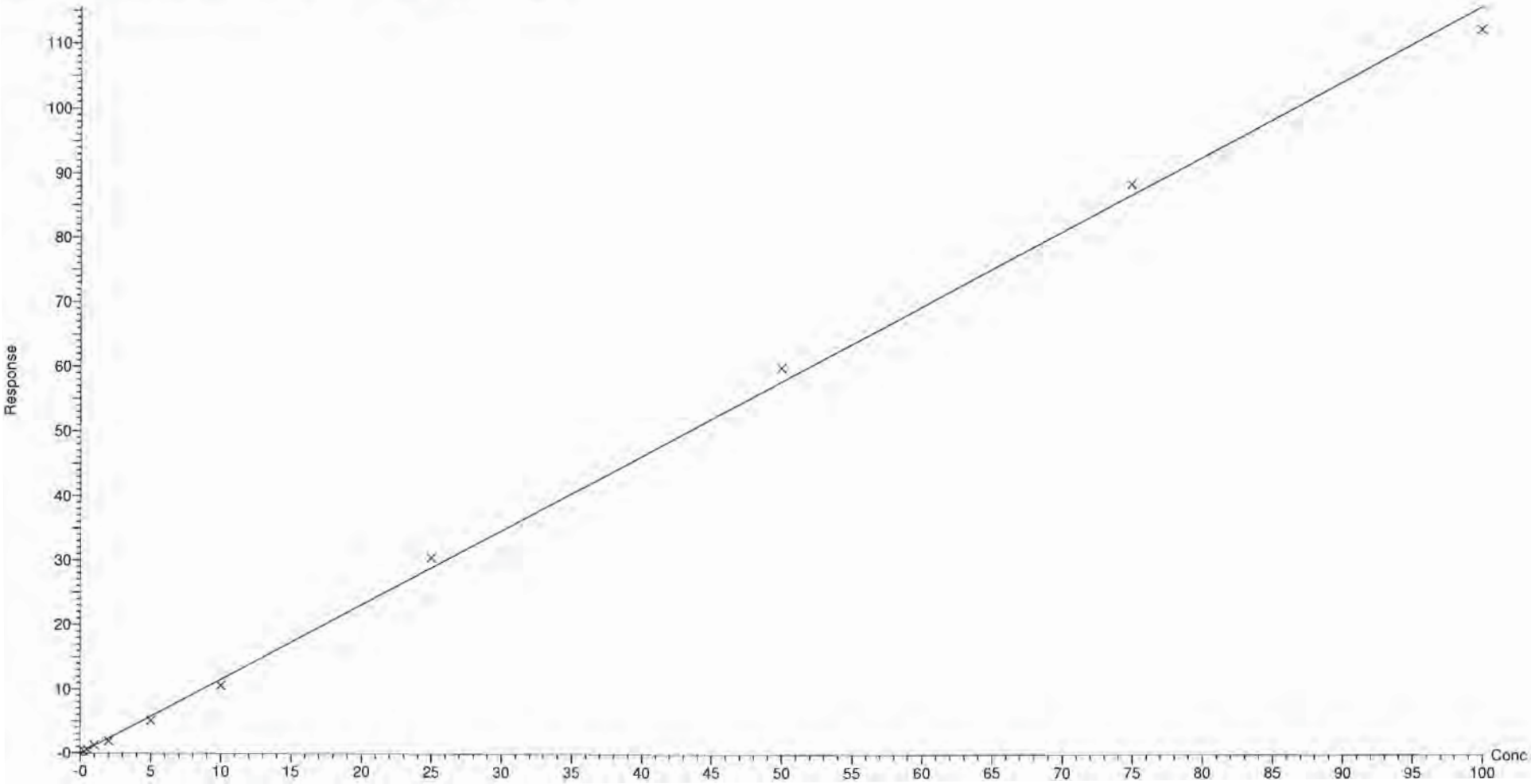
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 1.15659 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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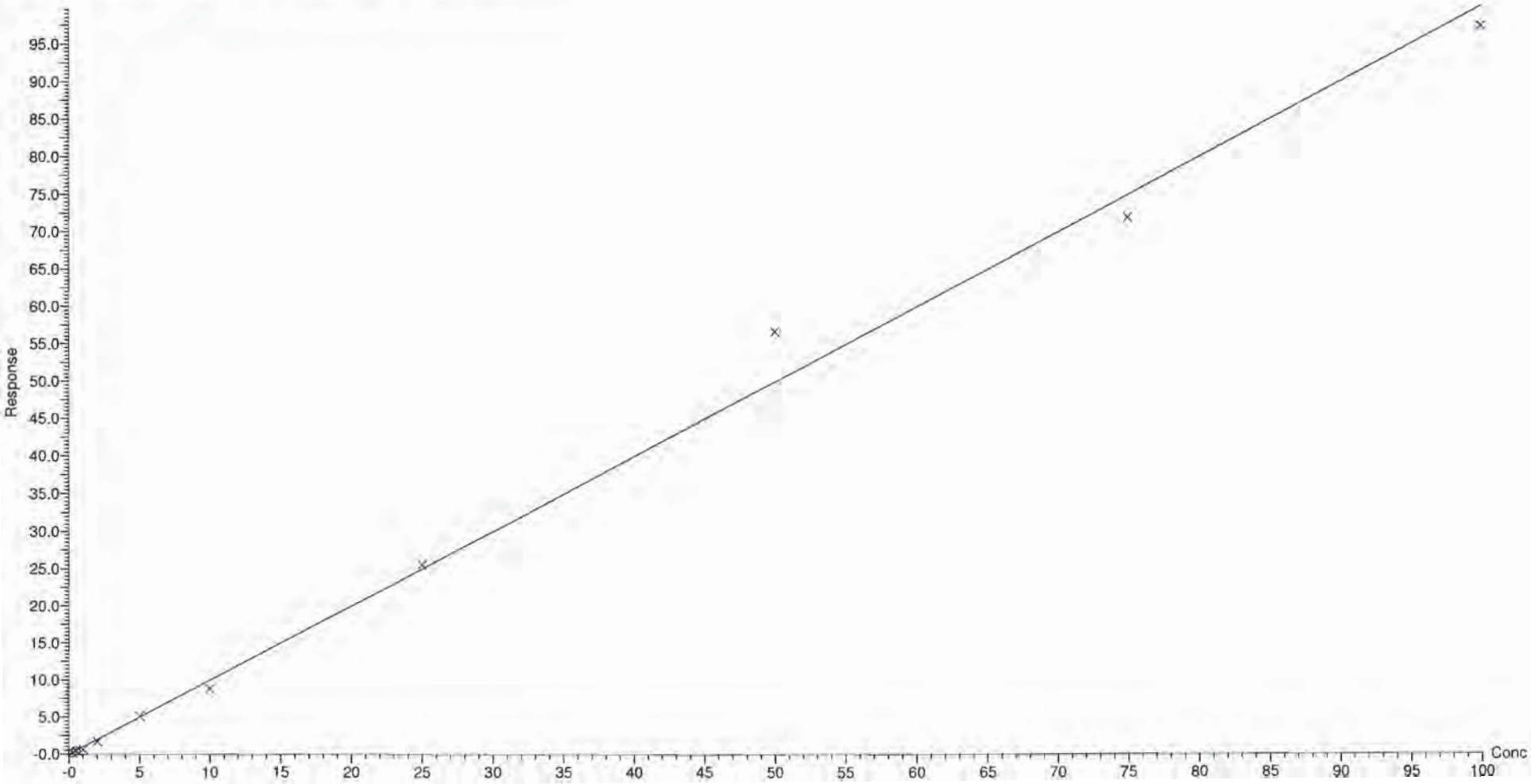
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.994002
Calibration curve: 0.997342 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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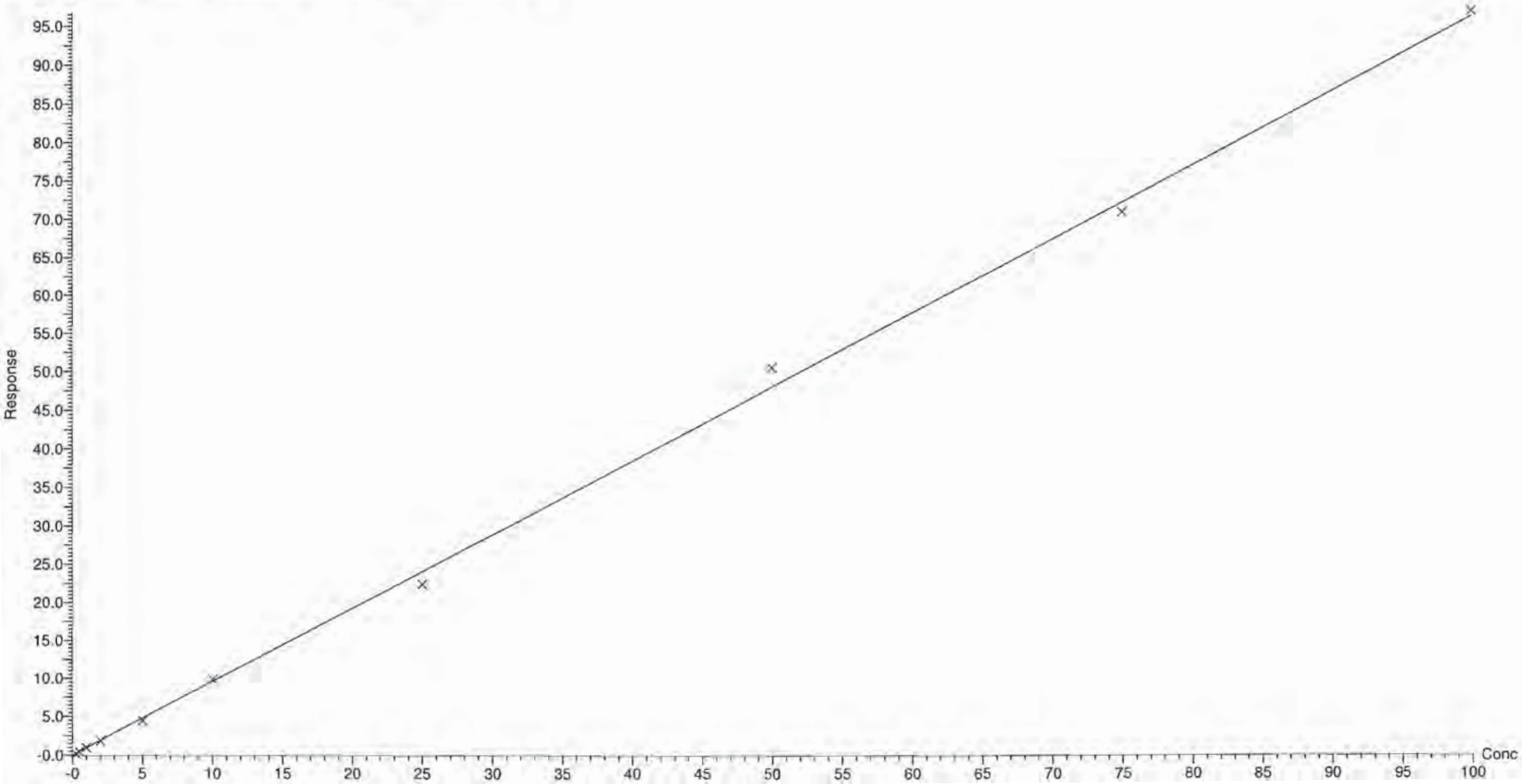
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998638
Calibration curve: 0.960831 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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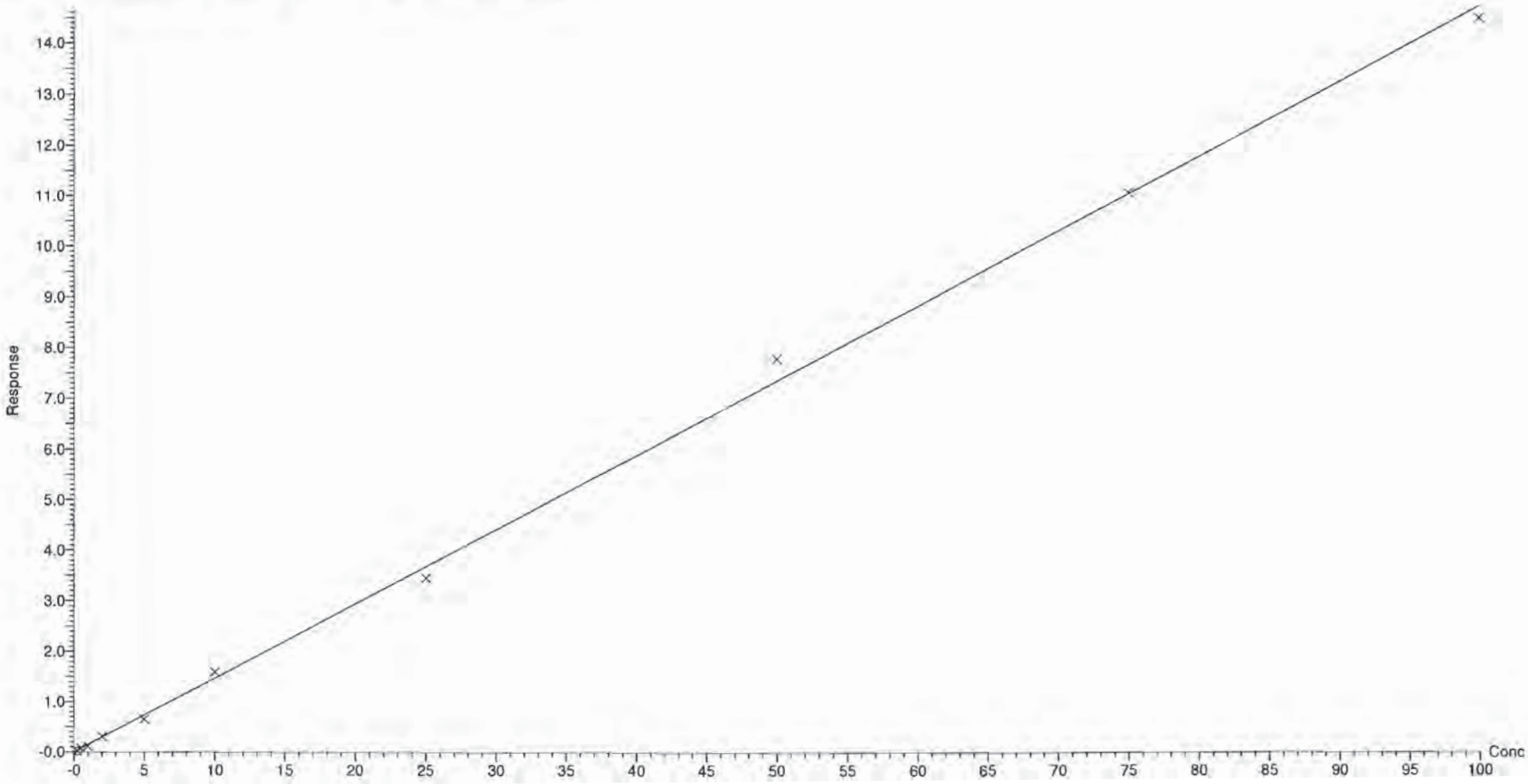
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.146969 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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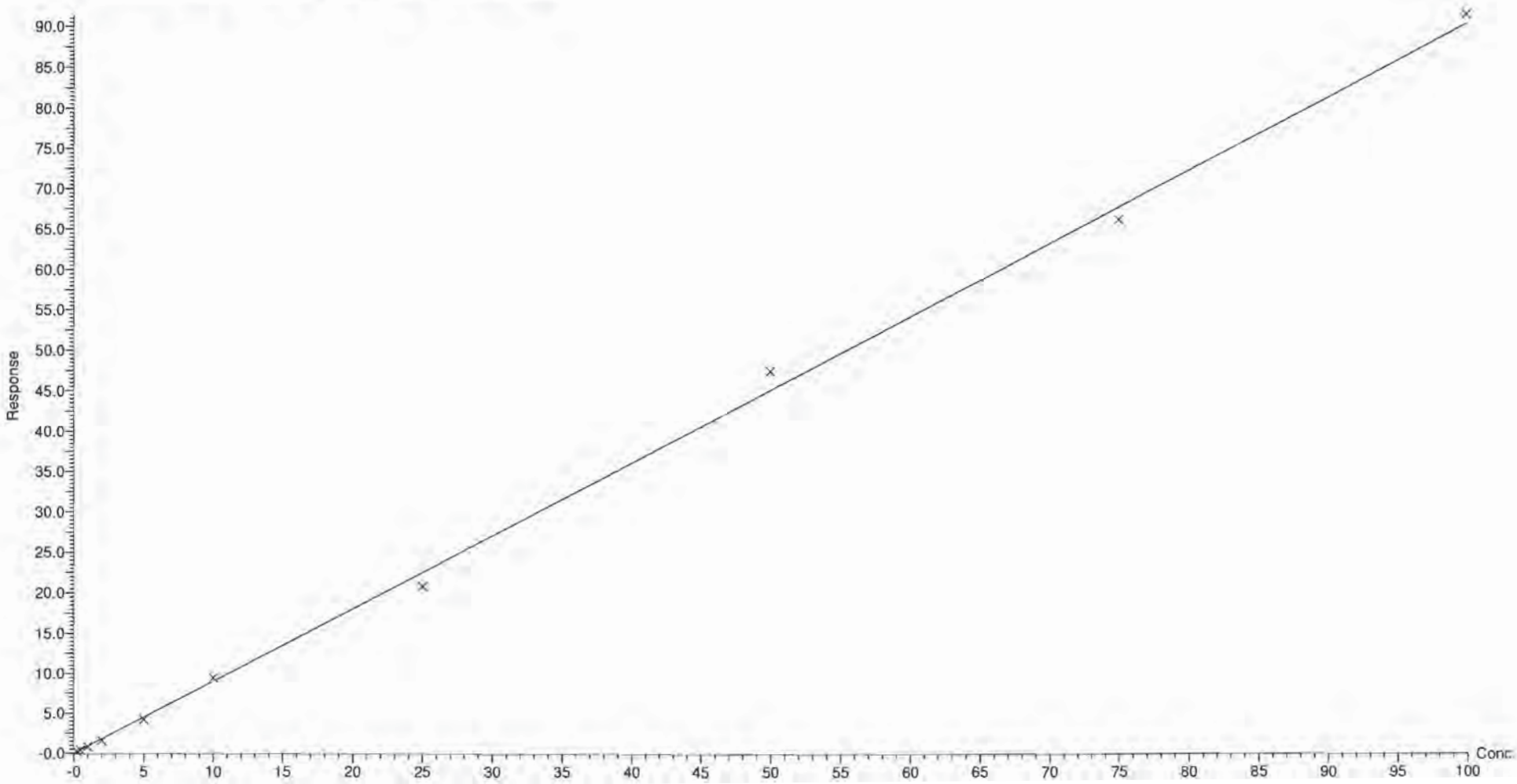
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998349
Calibration curve: 0.90204 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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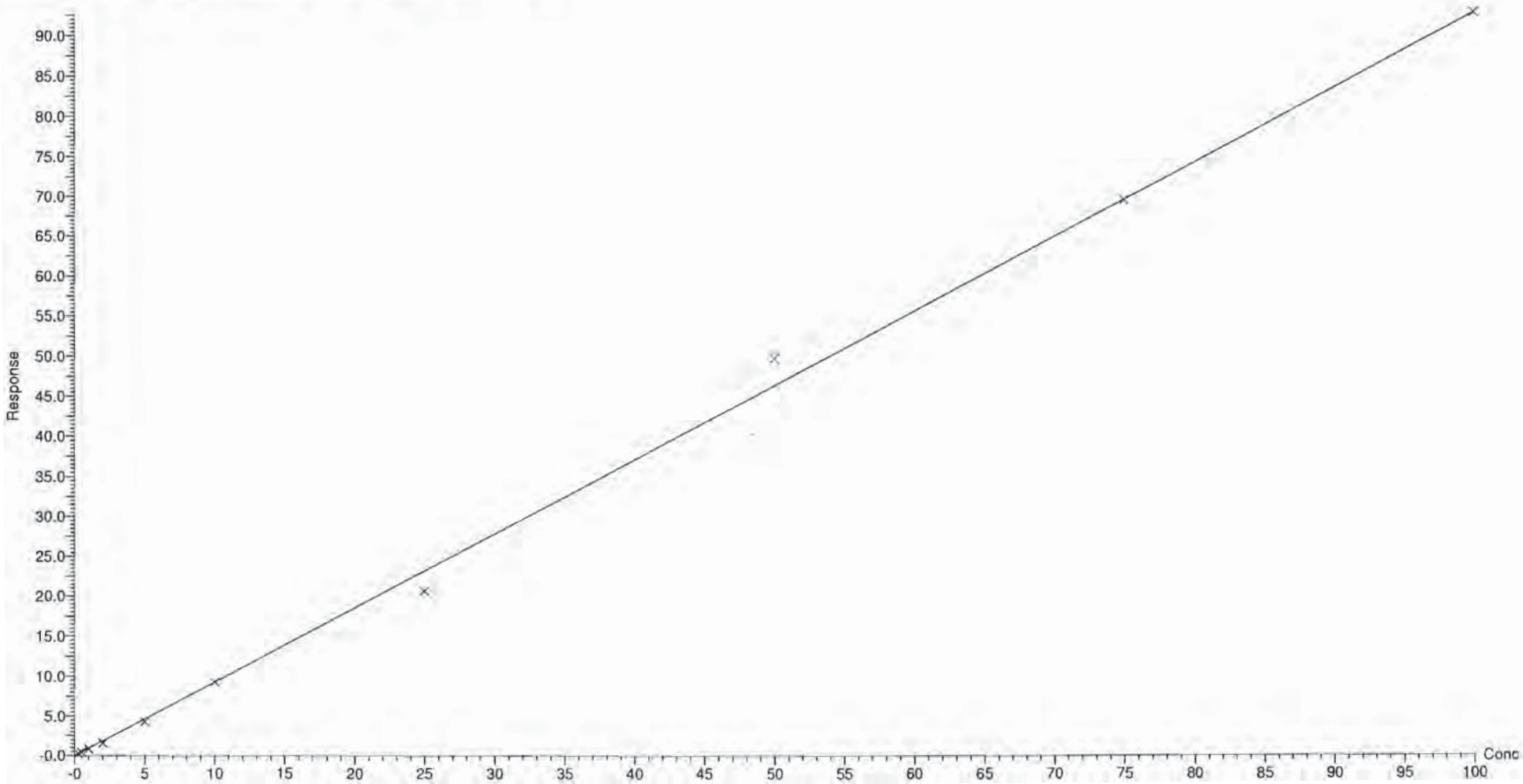
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:38:26 Pacific Daylight Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997347
Calibration curve: 0.926257 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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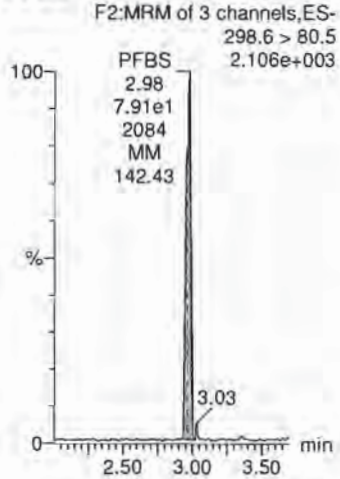
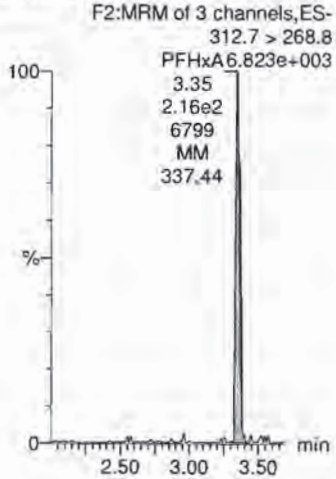
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

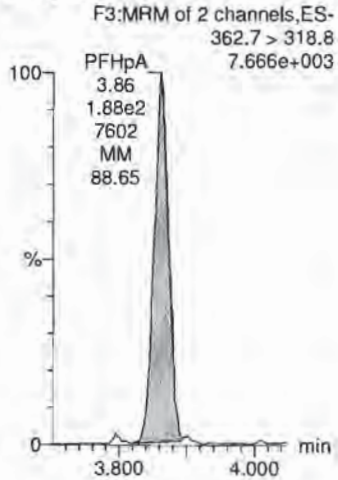
PFBS



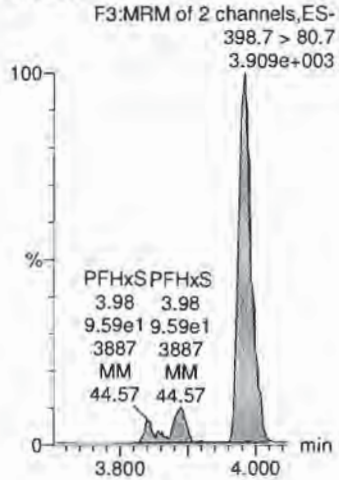
PFHxA



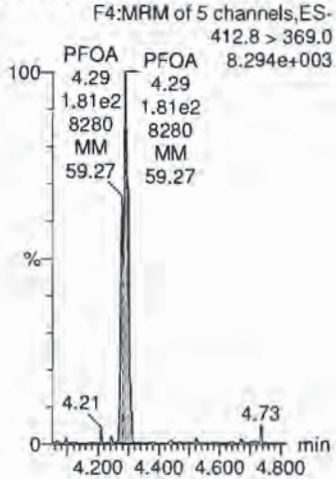
PFHpA



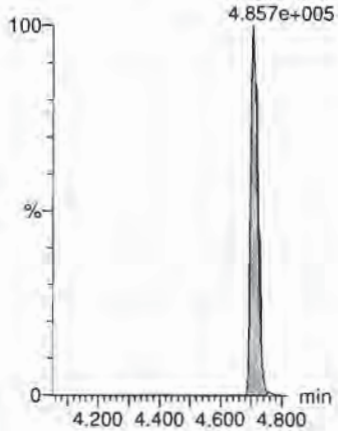
PFHxS



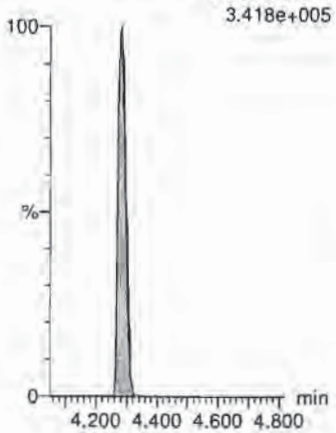
PFOA



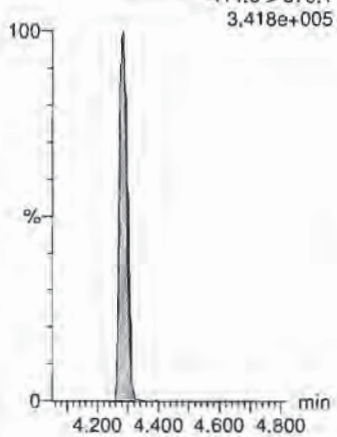
13C4-PFOS



13C2-PFOA



13C2-PFOA



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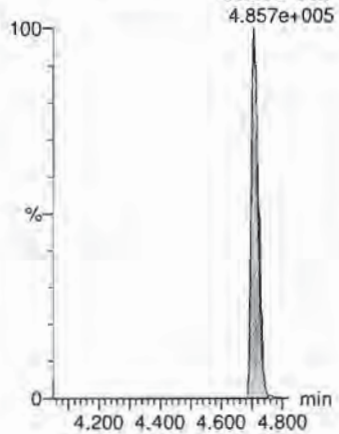

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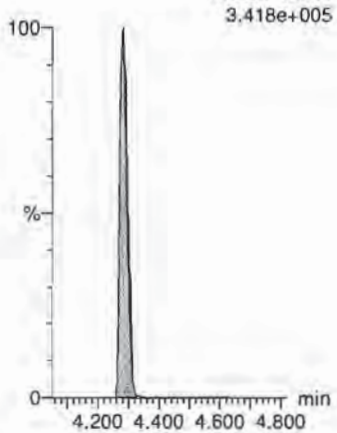

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

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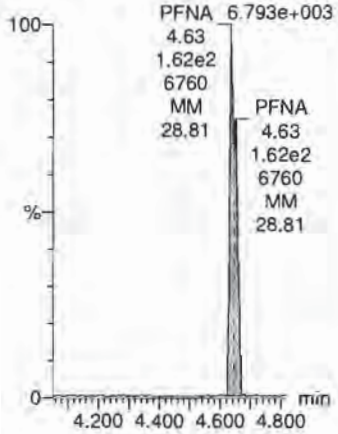

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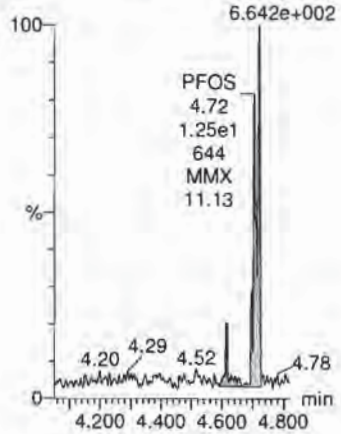

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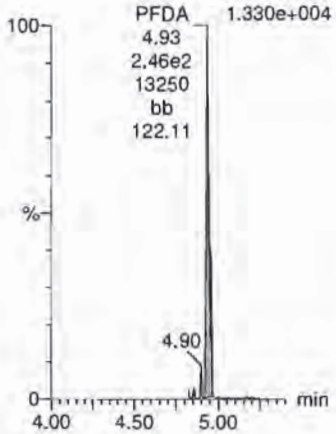

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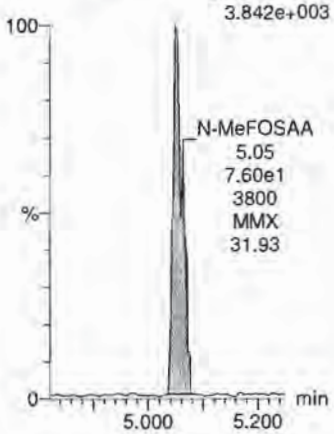

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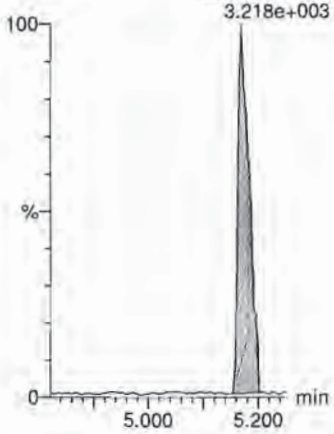

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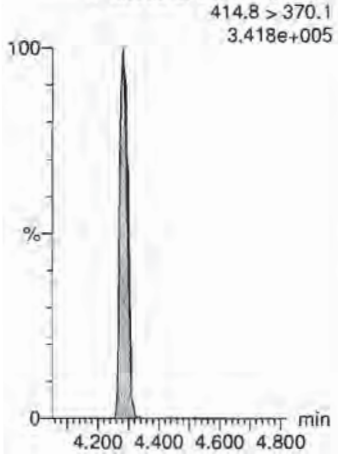

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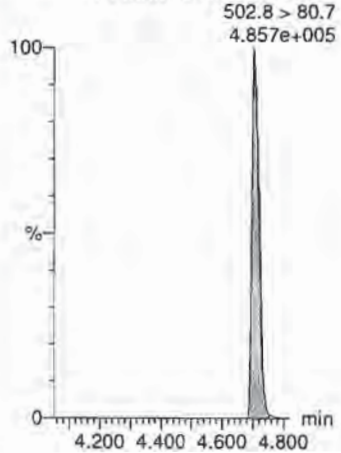

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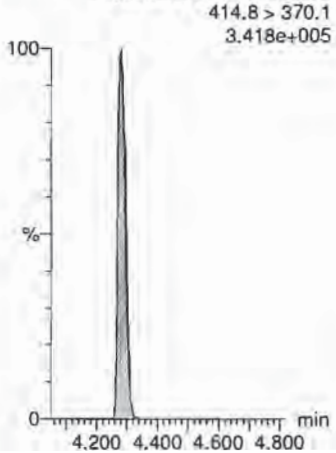

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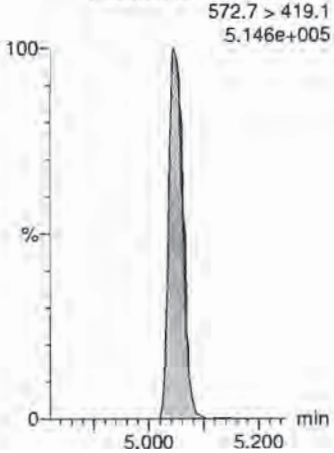

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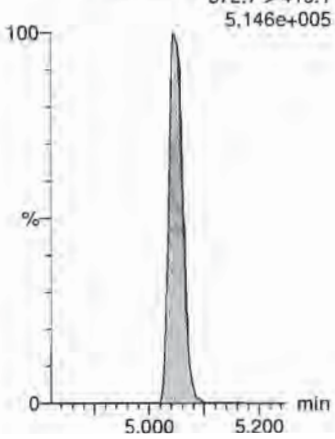

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

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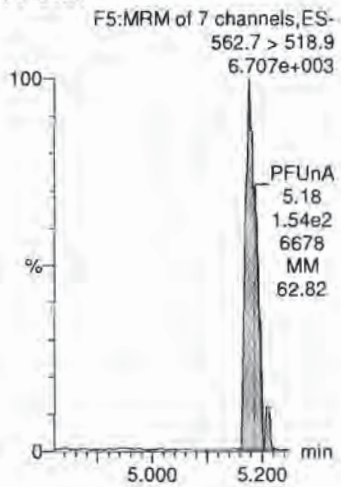

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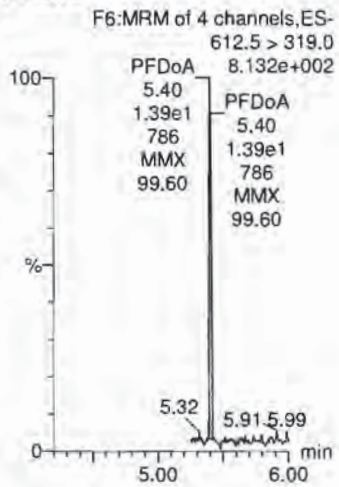

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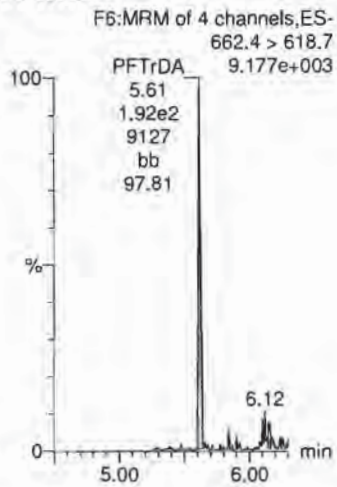

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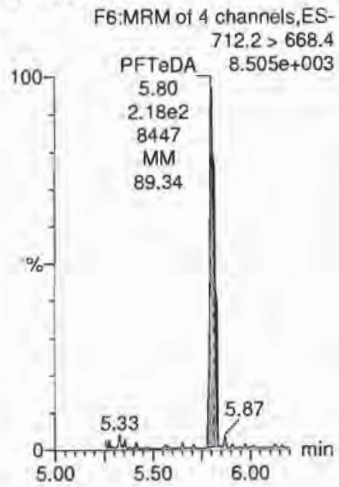

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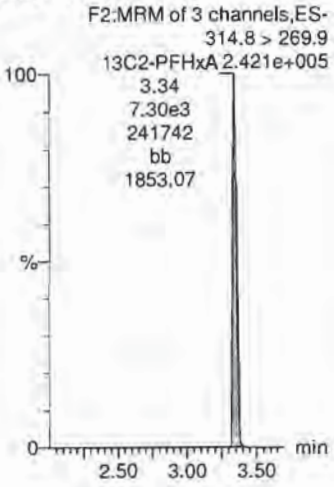

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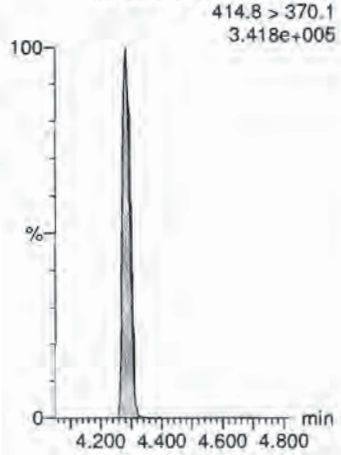

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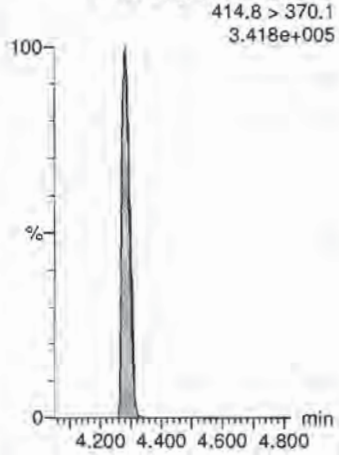

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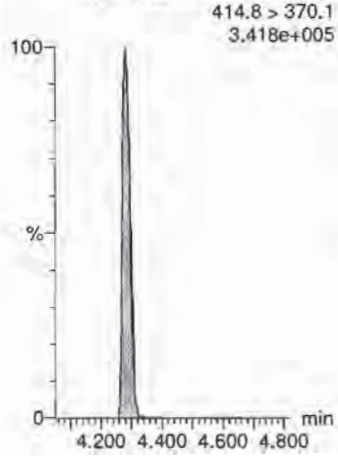

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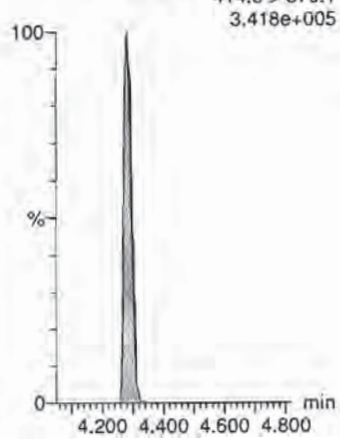

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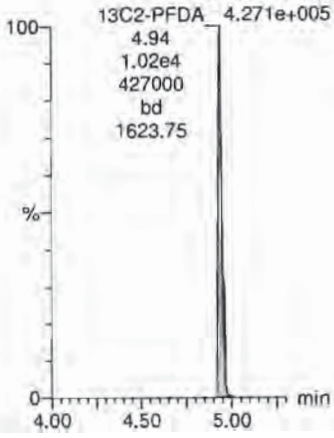

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_2, Date: 19-Jul-2018, Time: 15:03:28, ID: ST180719G3-1 PFC CS-4 537 18G1801, Description: PFC CS-4 537 18G1801

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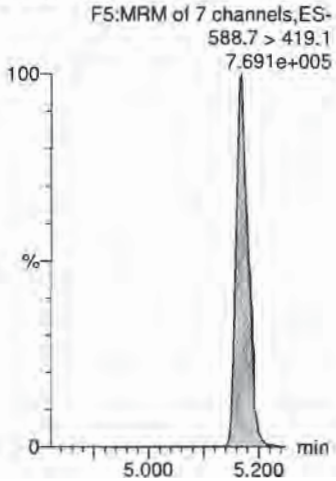

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Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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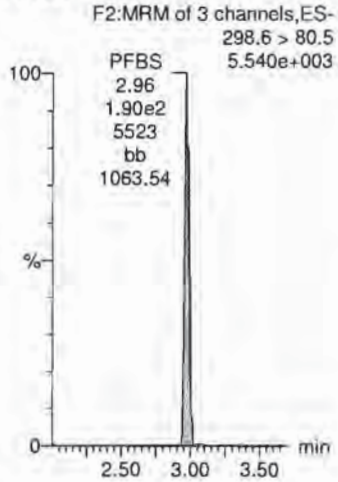

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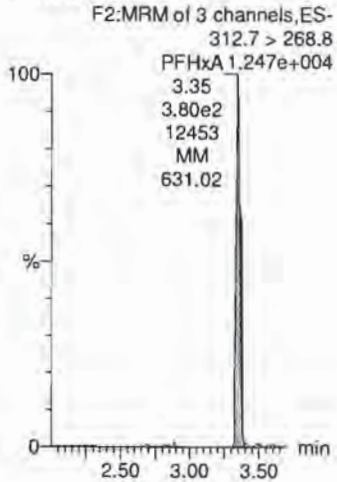

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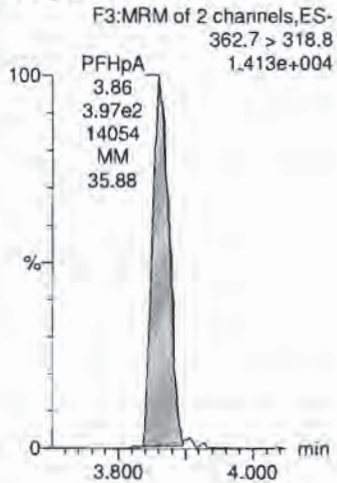

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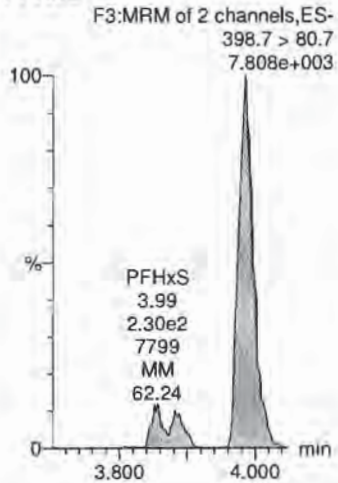

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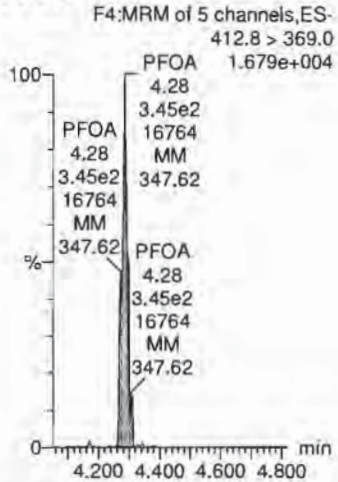

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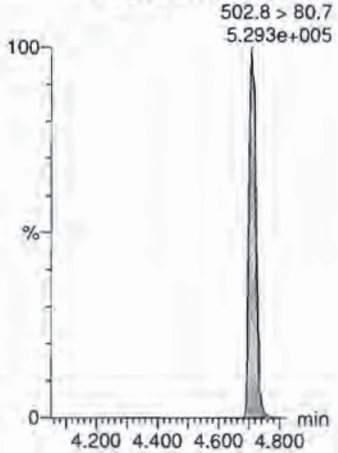

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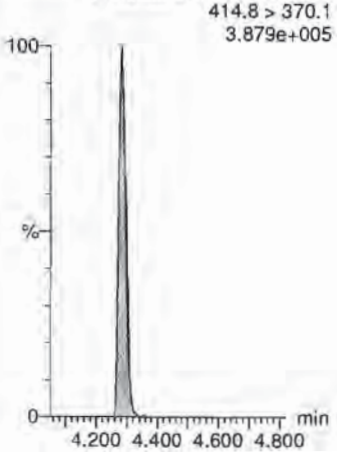

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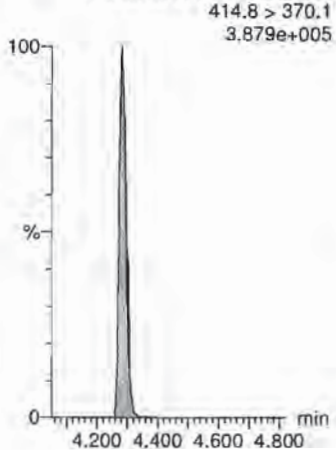

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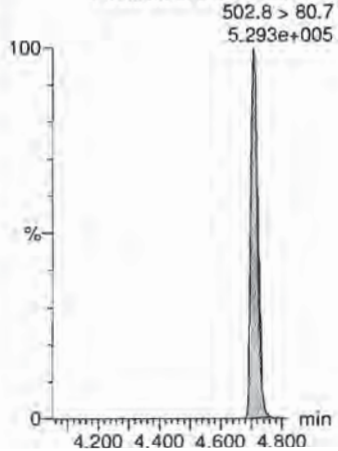

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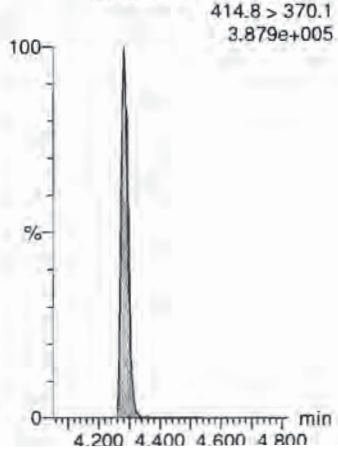

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Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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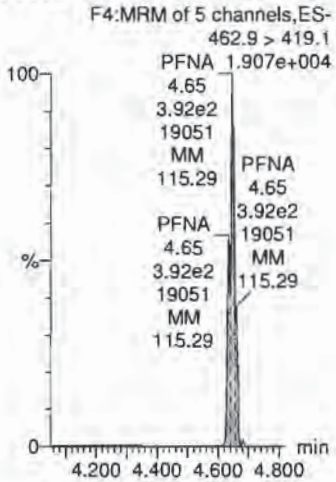

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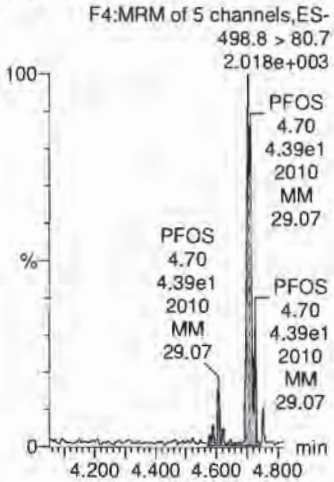

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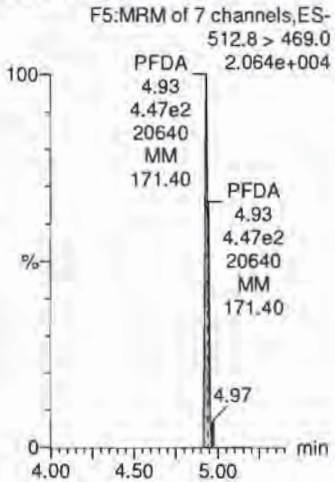

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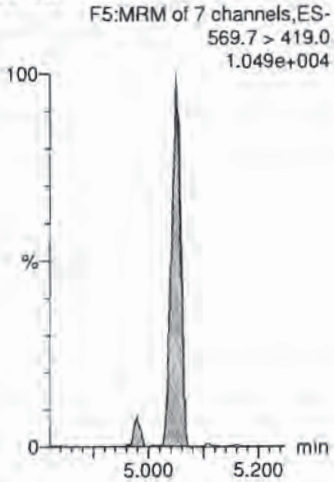

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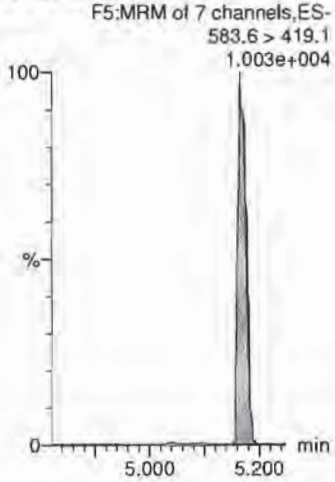

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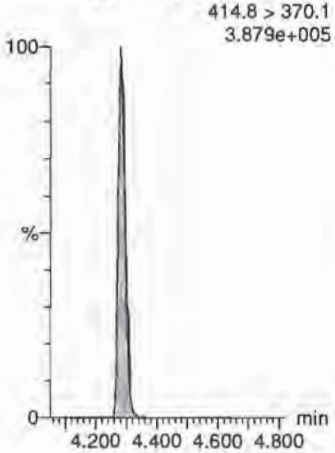

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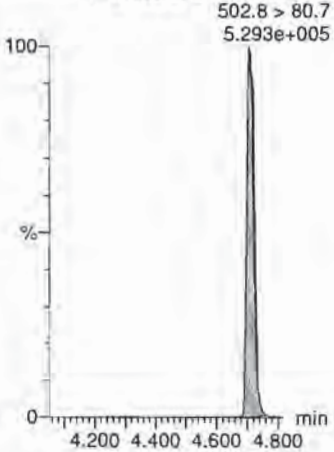

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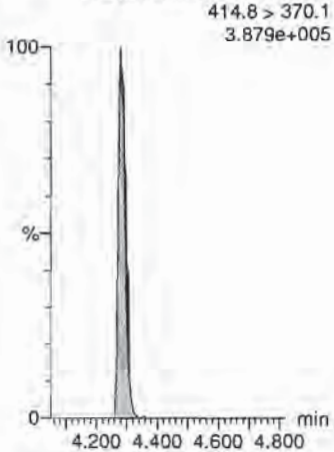

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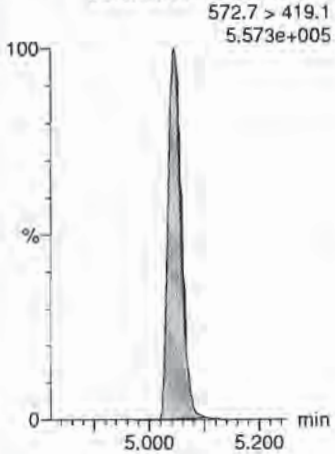

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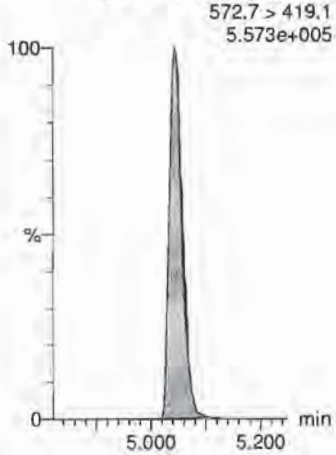

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Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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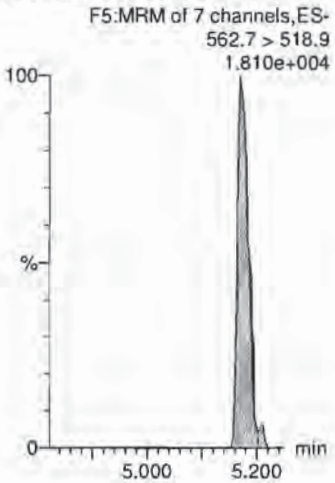

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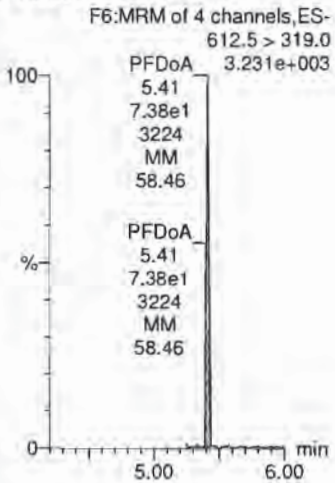

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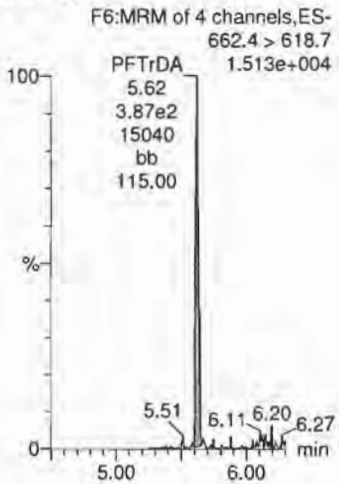

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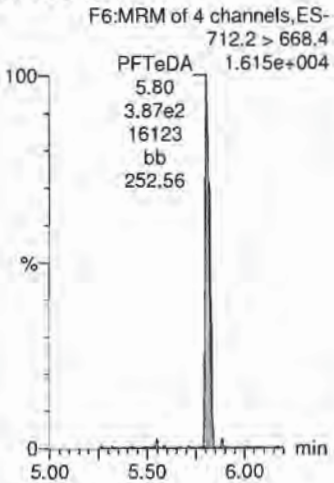

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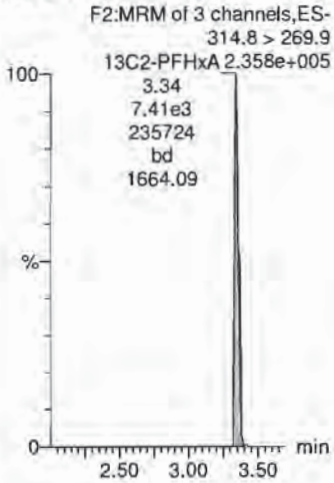

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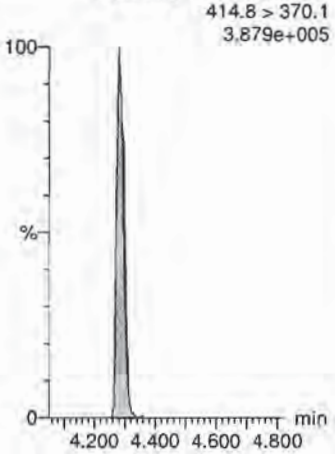

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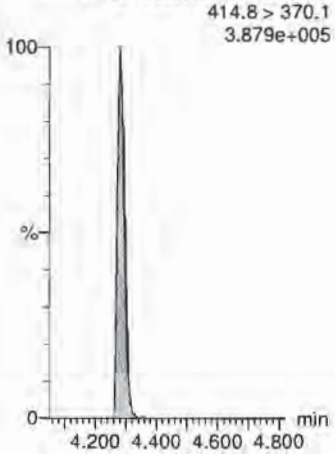

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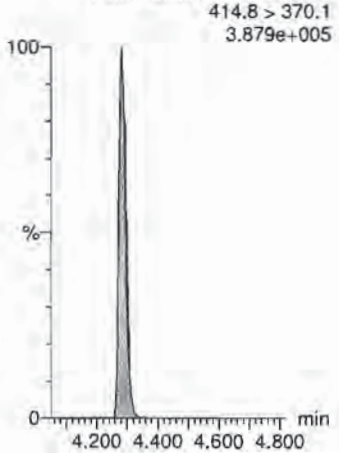

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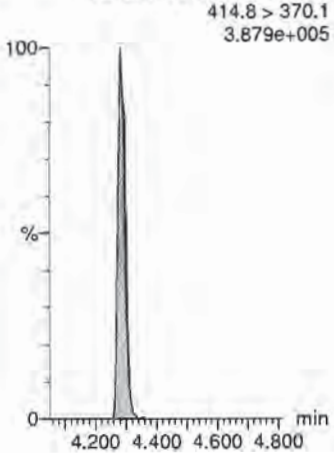

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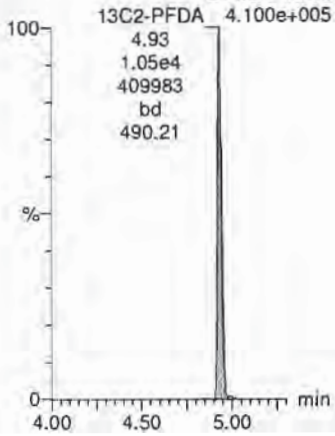

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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_3, Date: 19-Jul-2018, Time: 15:16:17, ID: ST180719G3-2 PFC CS-3 537 18G1802, Description: PFC CS-3 537 18G1802

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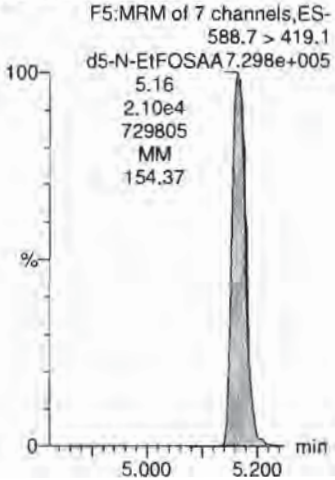

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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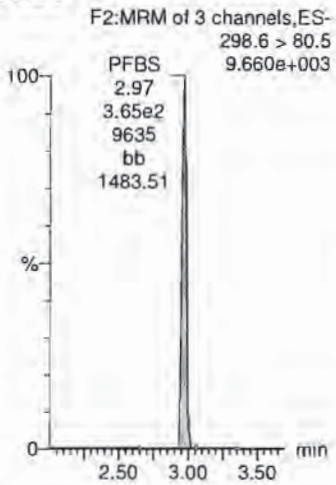

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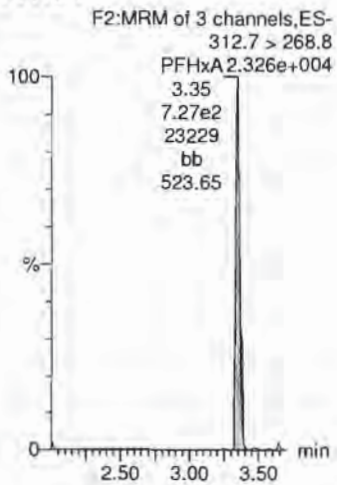

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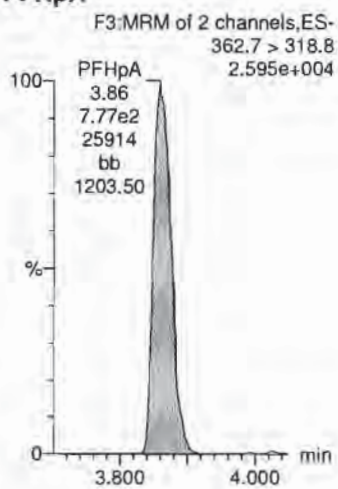

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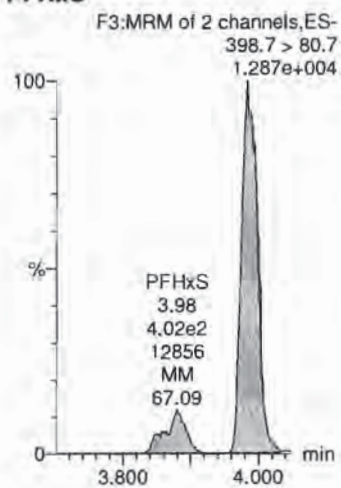

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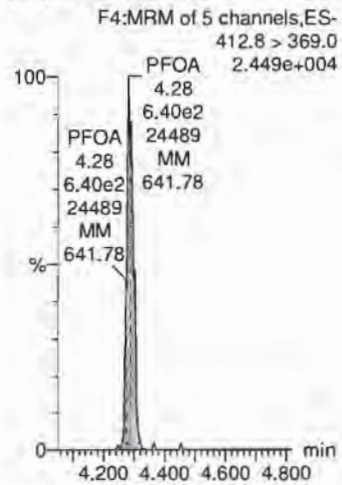

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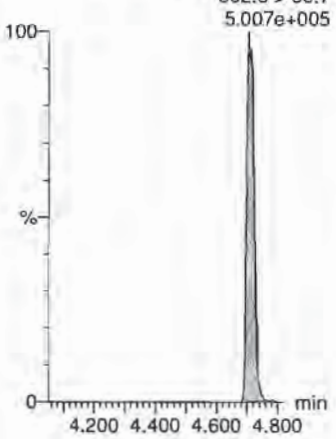

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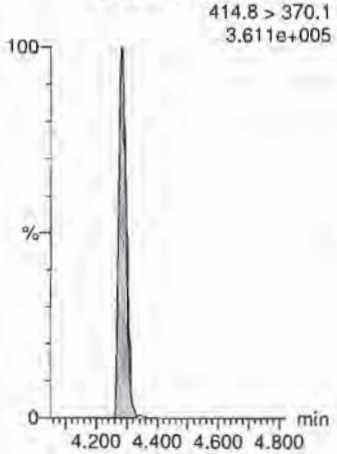

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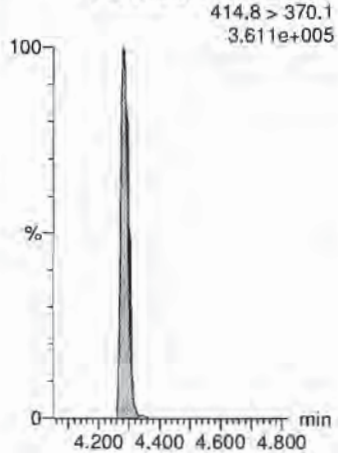

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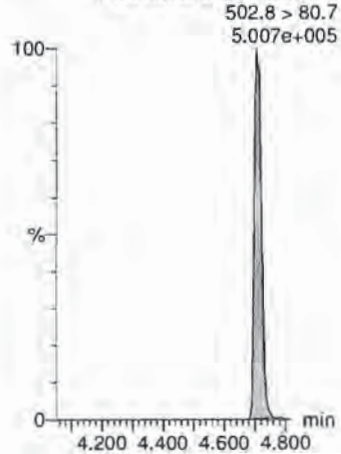

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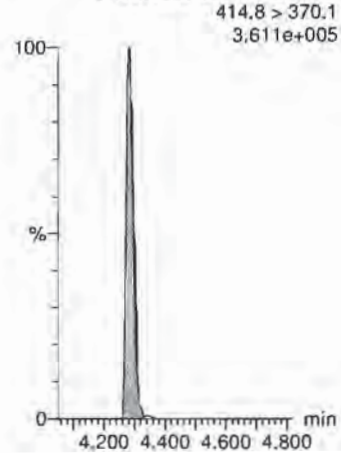

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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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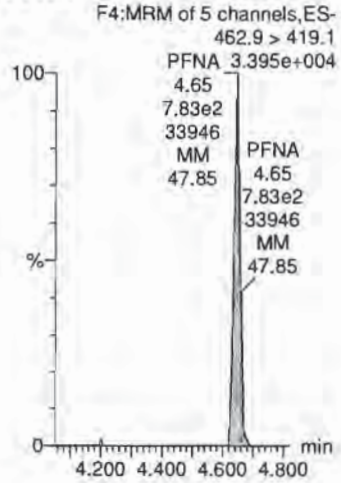

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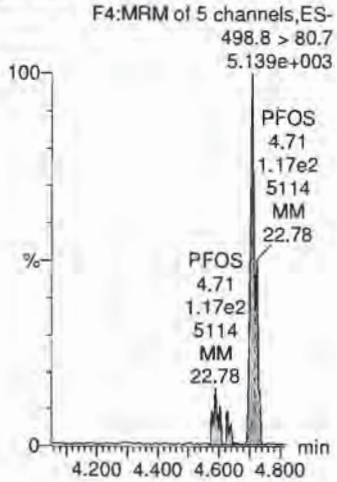

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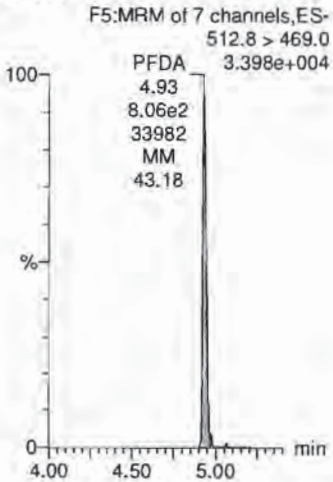

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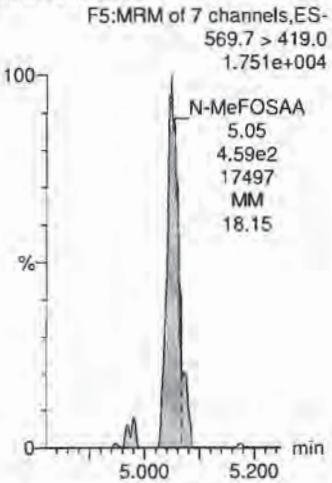

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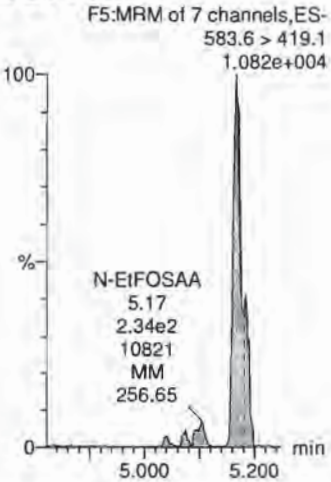

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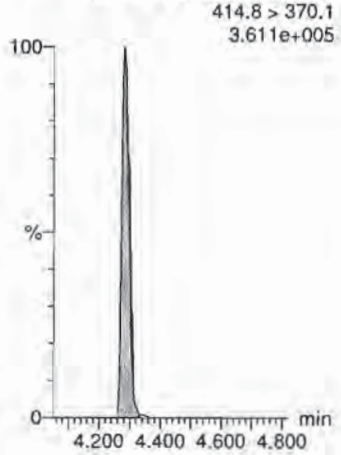

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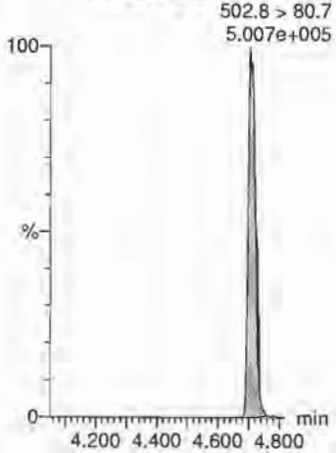

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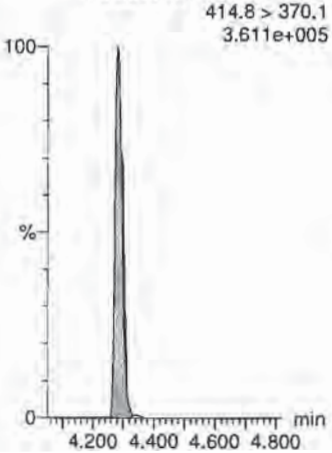

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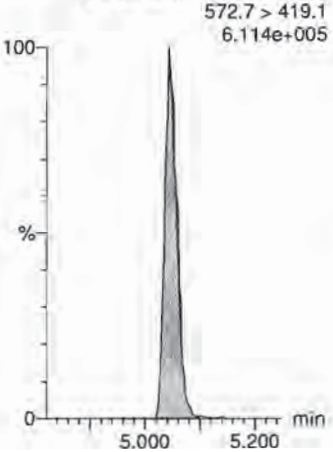

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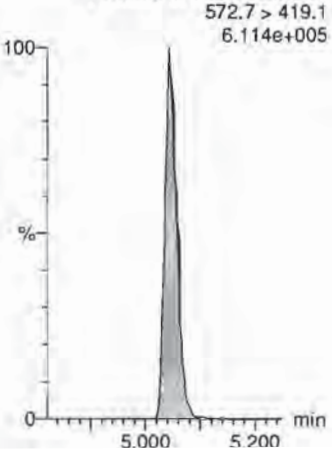

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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

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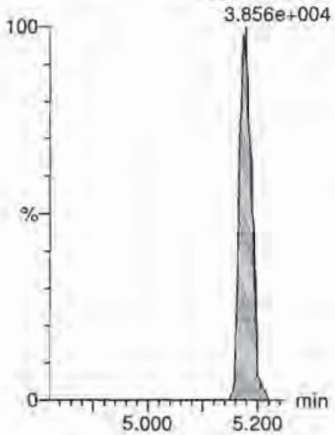

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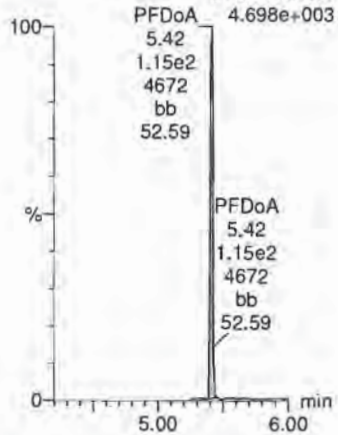

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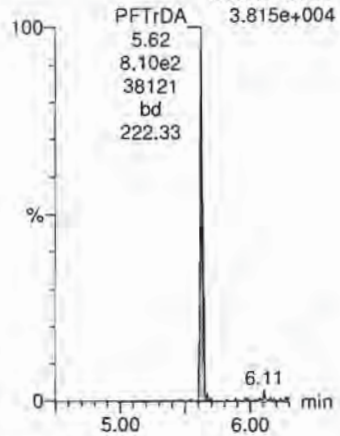

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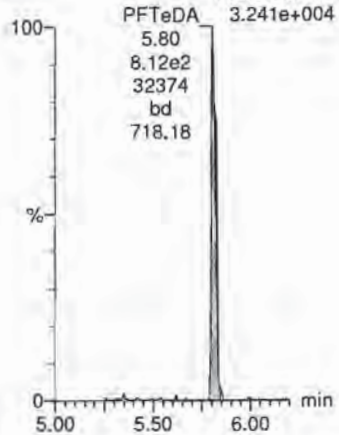

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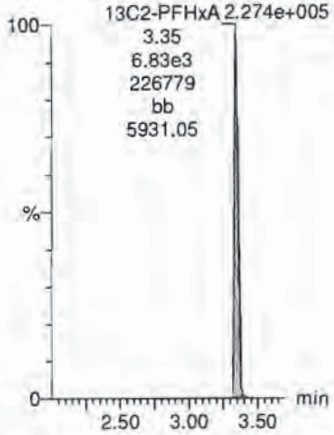

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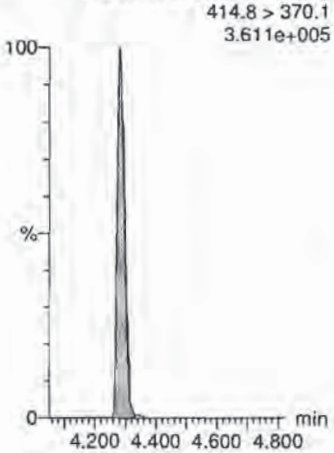

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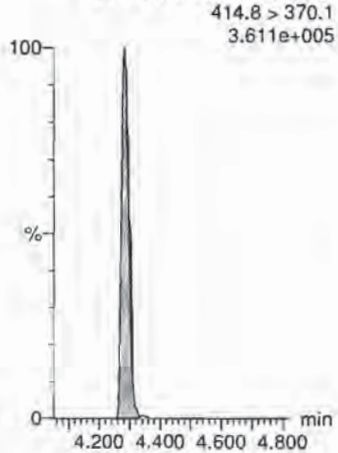

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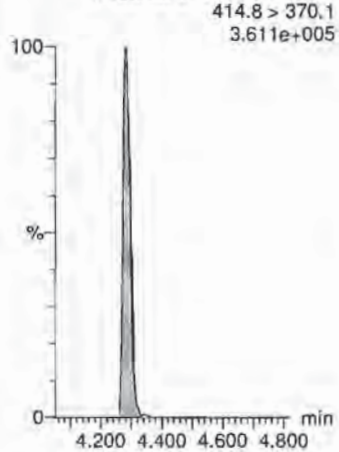

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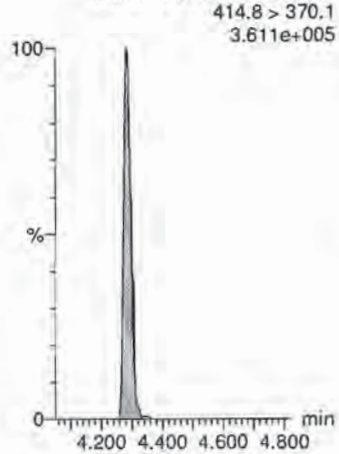

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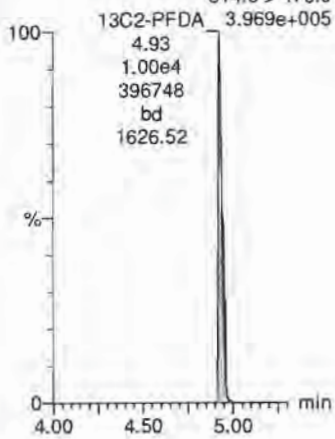

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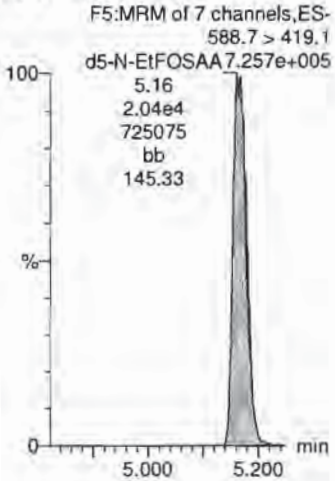
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_4, Date: 19-Jul-2018, Time: 15:29:06, ID: ST180719G3-3 PFC CS-2 537 18G1803, Description: PFC CS-2 537 18G1803

d5-N-EtFOSAA



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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
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Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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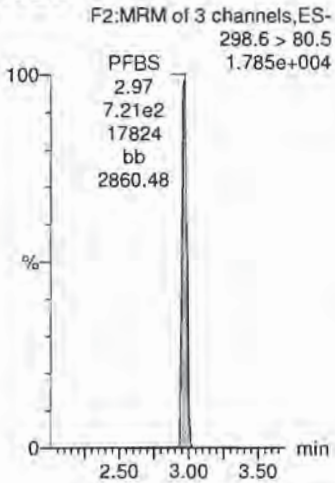

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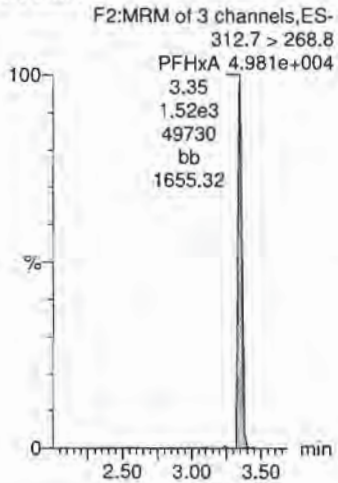

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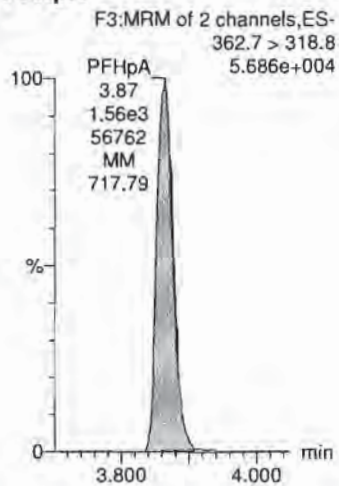

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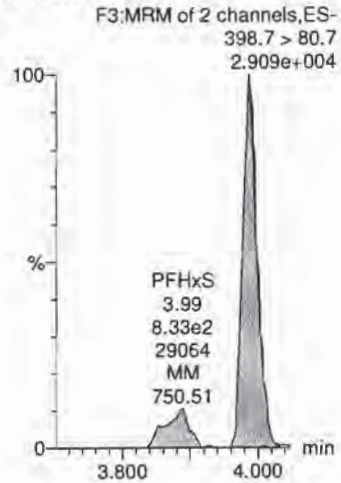

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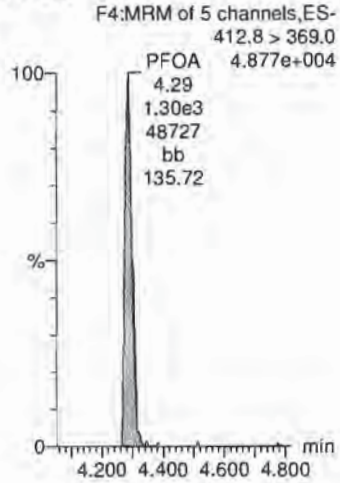

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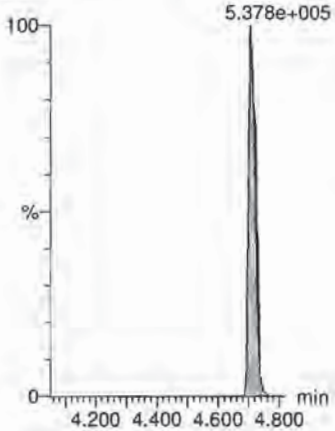

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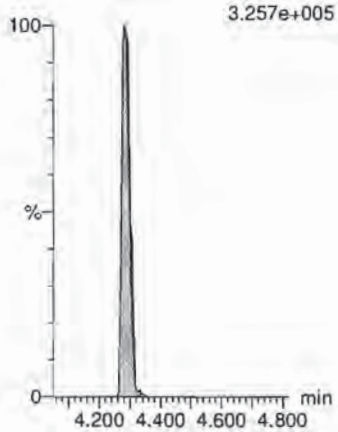

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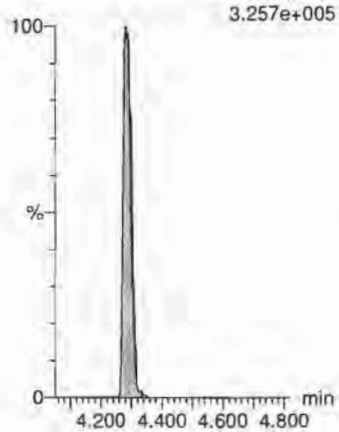

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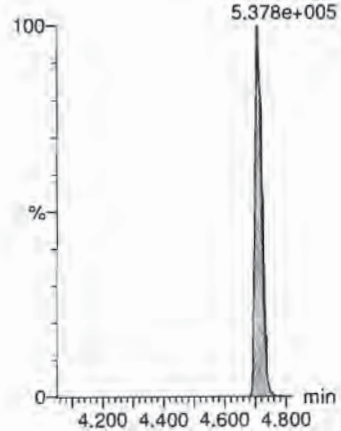

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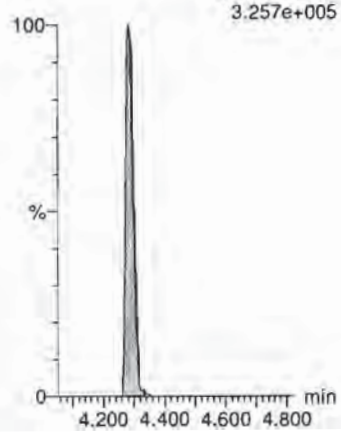

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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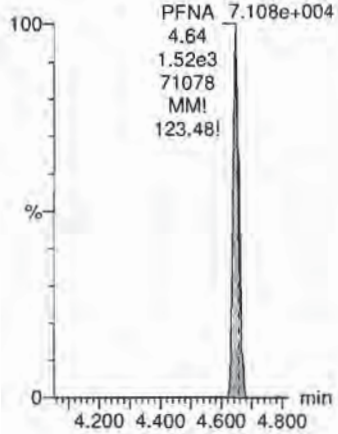

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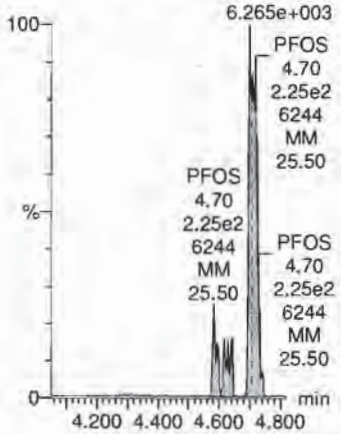

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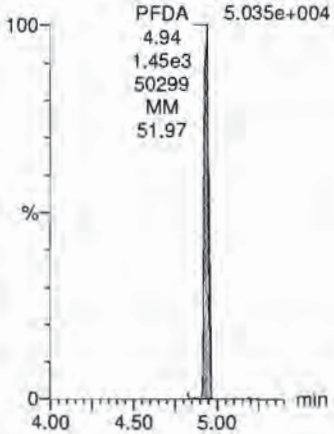

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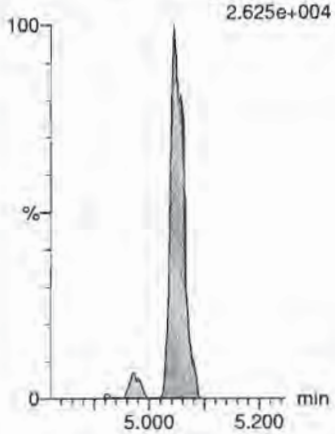

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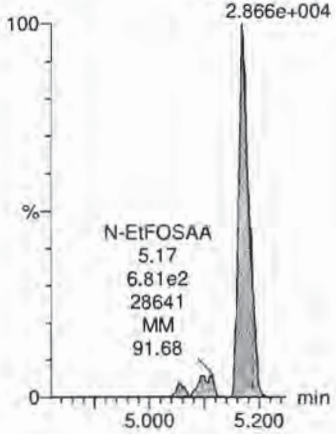

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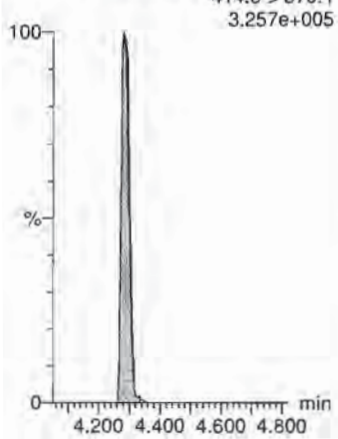

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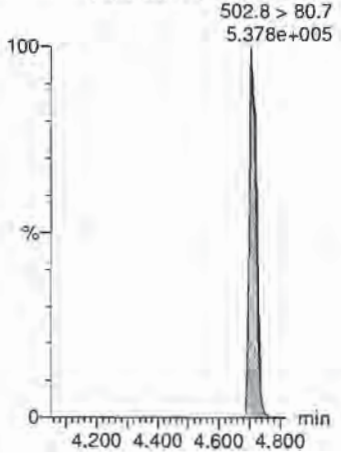

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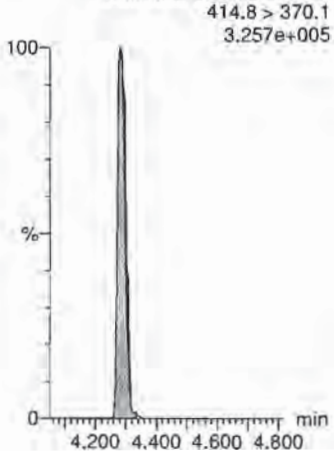

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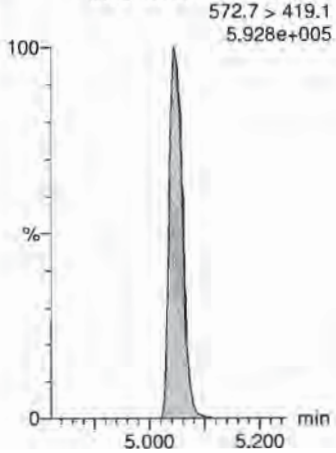

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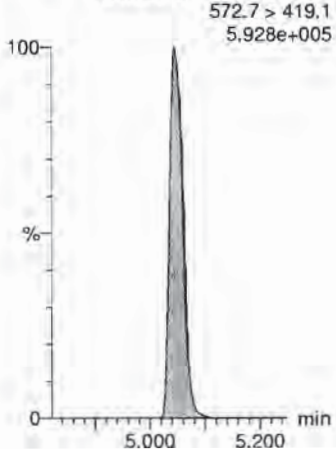

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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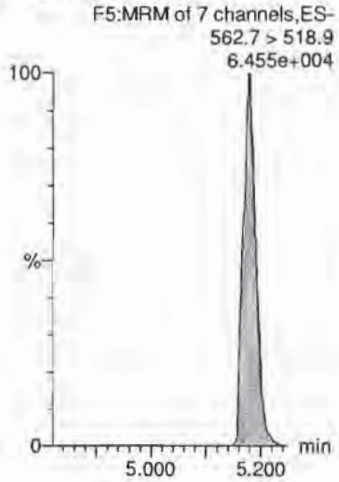

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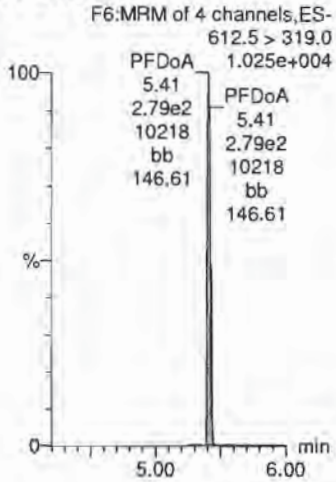

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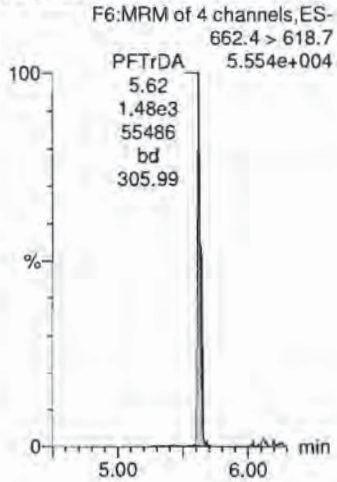

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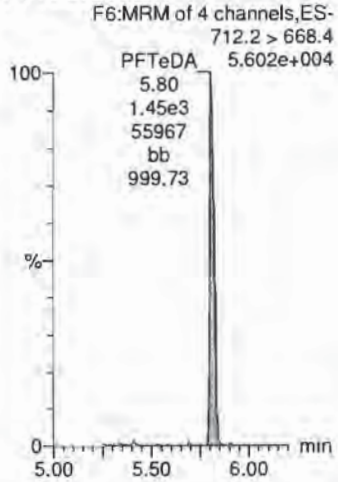

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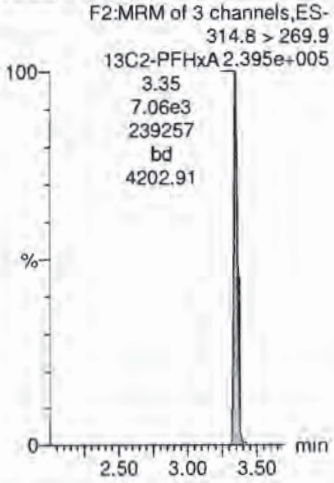

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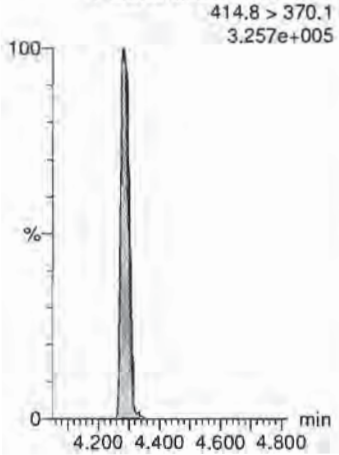

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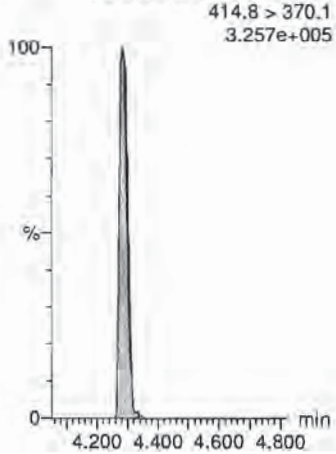

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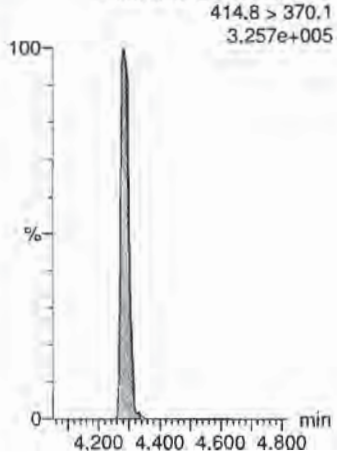

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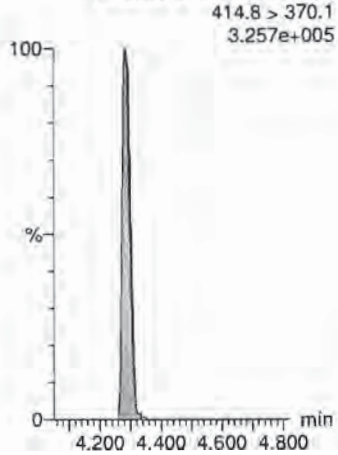

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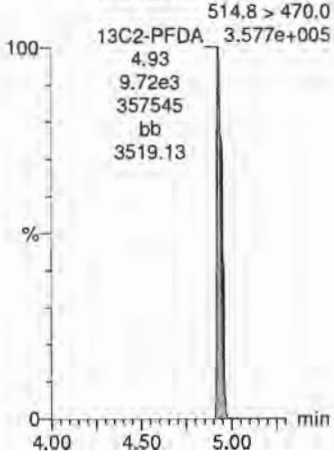

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_5, Date: 19-Jul-2018, Time: 15:41:56, ID: ST180719G3-4 PFC CS-1 537 18G1804, Description: PFC CS-1 537 18G1804

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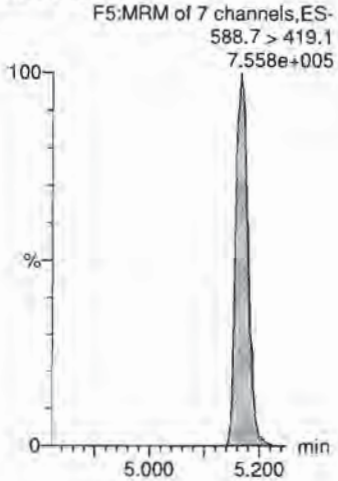

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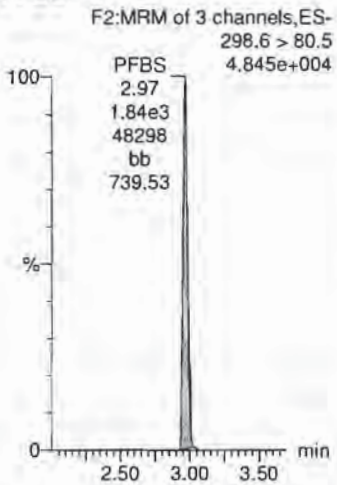

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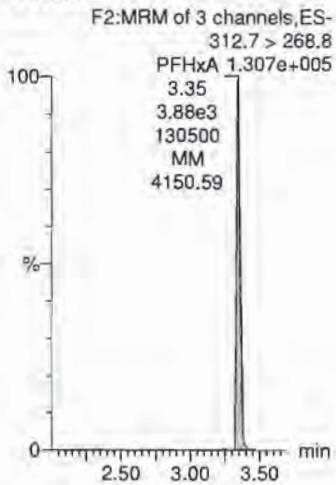

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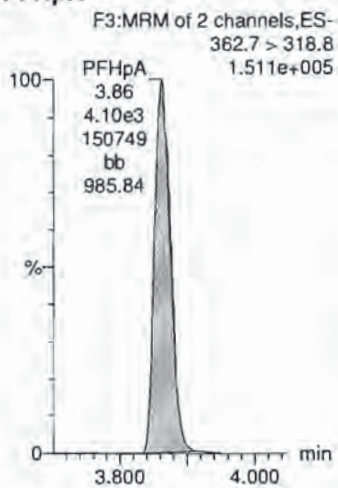

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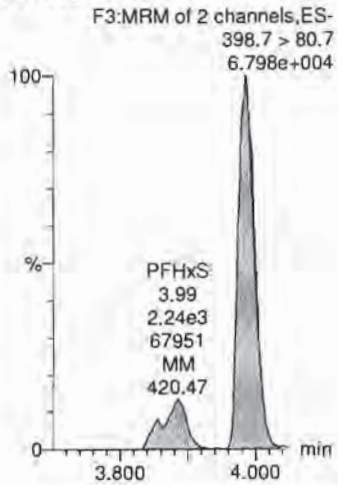

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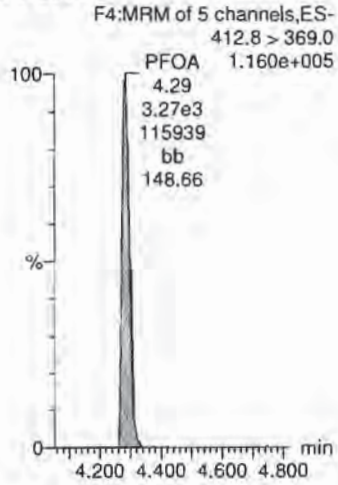

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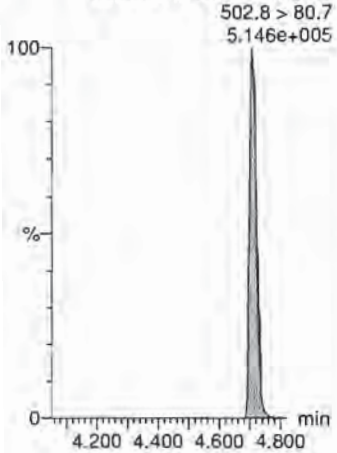

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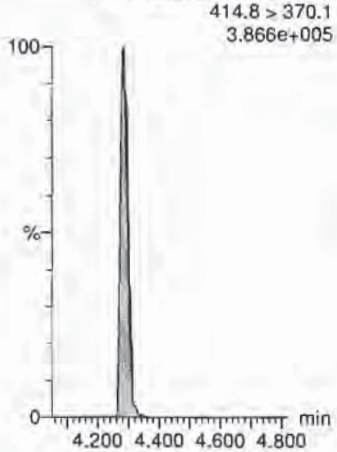

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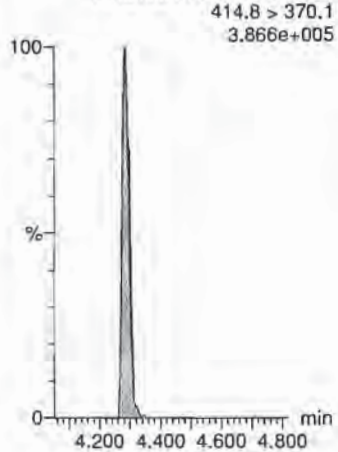

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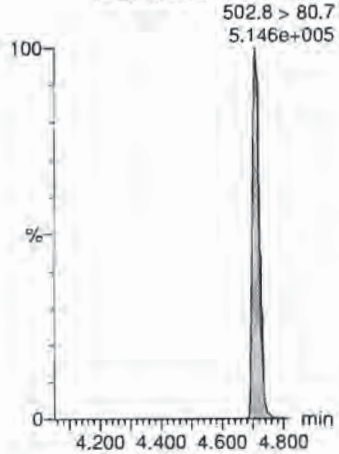

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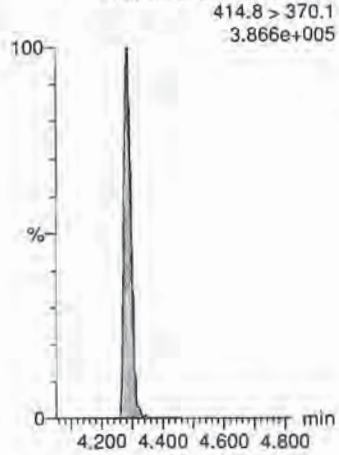

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_6, Date: 19-Jul-2018, Time: 15:54:41, ID: ST180719G3-5 PFC CS0 537 18G1805, Description: PFC CS0 537 18G1805

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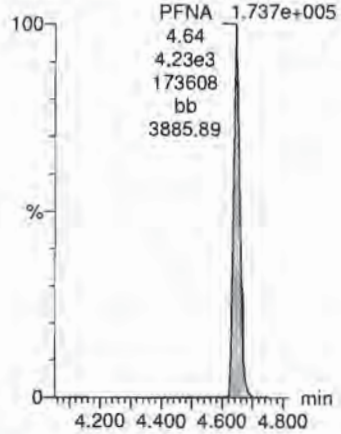

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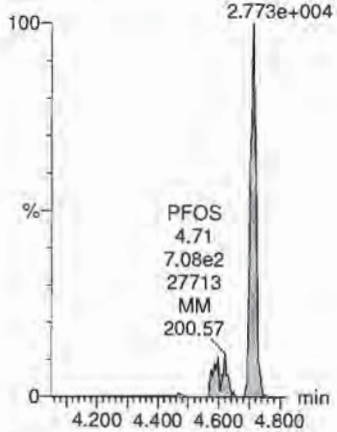

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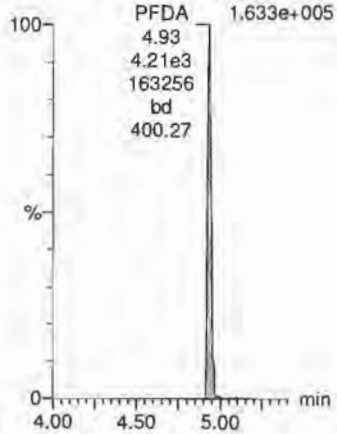

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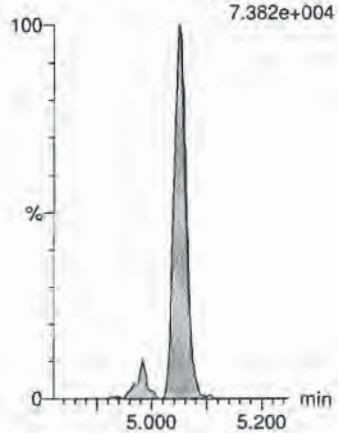

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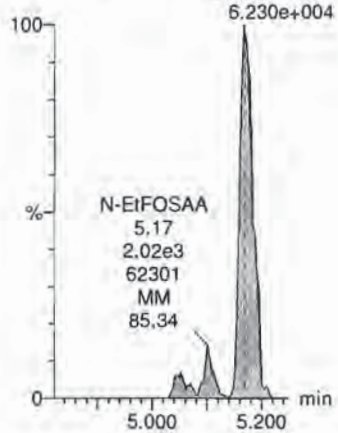

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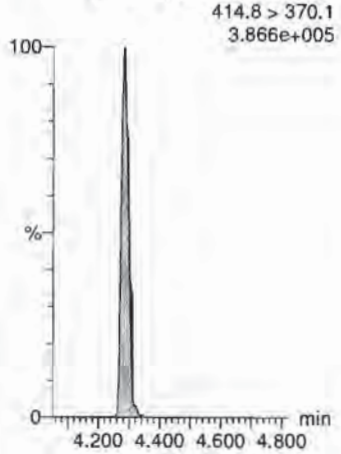

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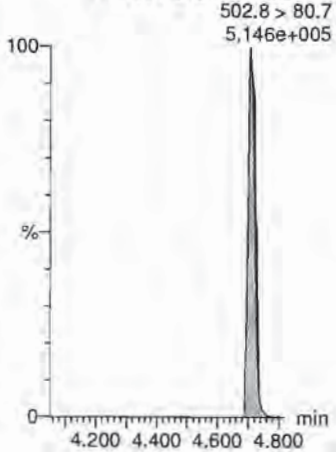

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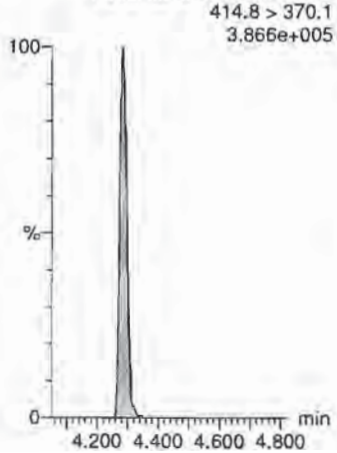

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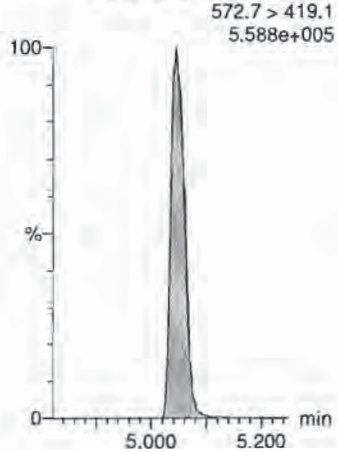

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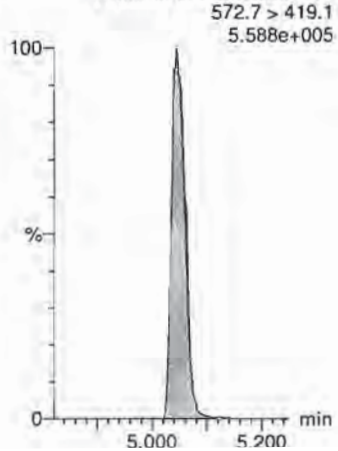

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_6, Date: 19-Jul-2018, Time: 15:54:41, ID: ST180719G3-5 PFC CS0 537 18G1805, Description: PFC CS0 537 18G1805

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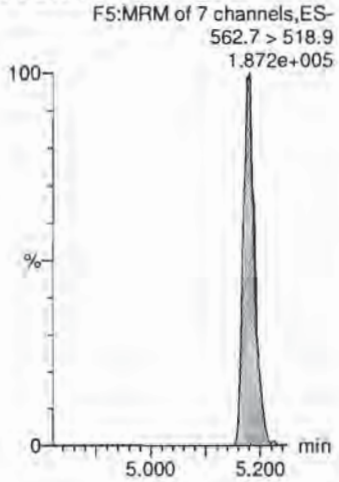

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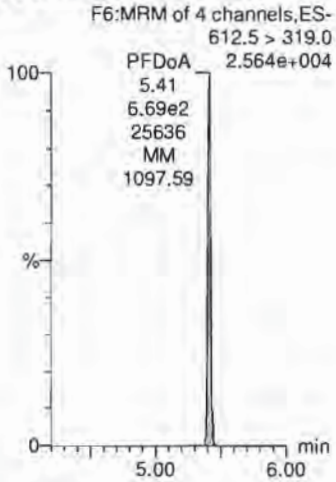

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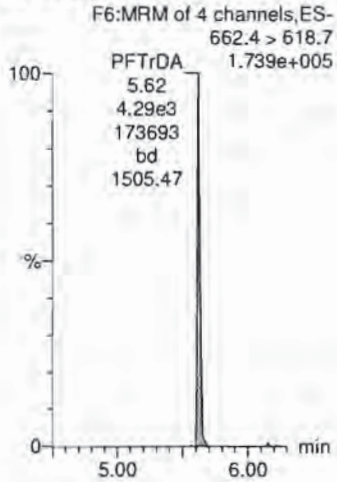

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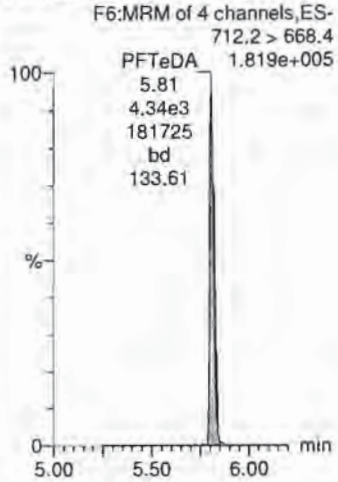

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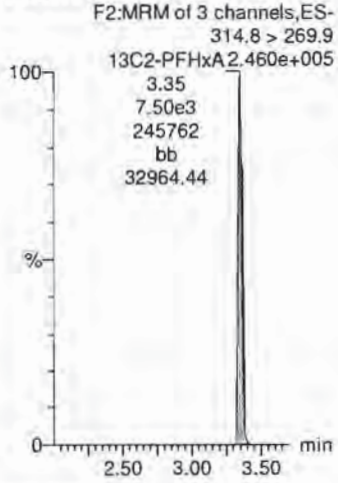

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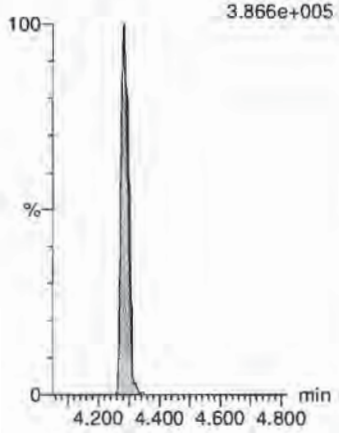

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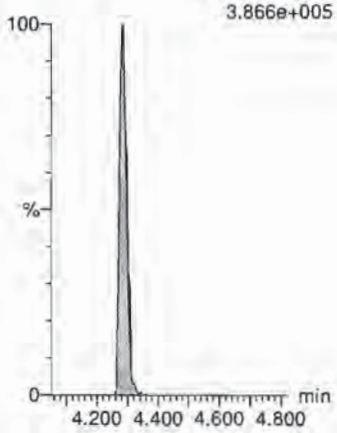

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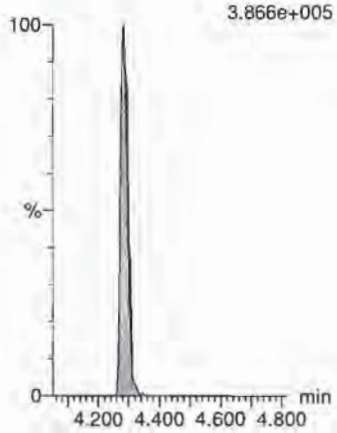

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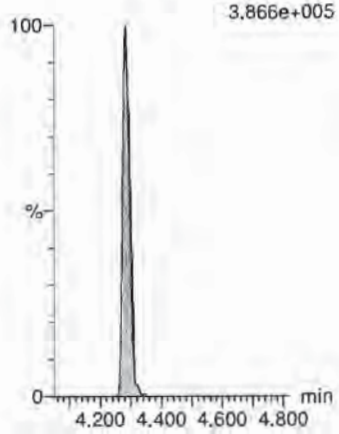

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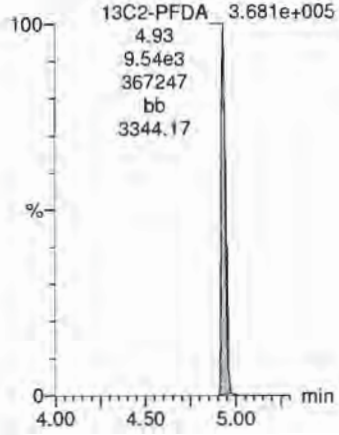

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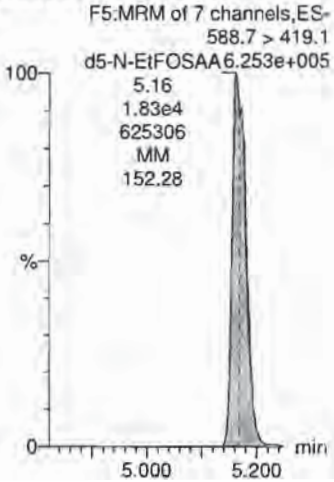
Name: 180719G3_6, Date: 19-Jul-2018, Time: 15:54:41, ID: ST180719G3-5 PFC CS0 537 18G1805, Description: PFC CS0 537 18G1805

d5-N-EtFOSAA



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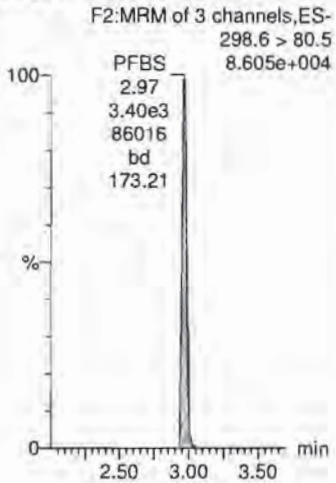

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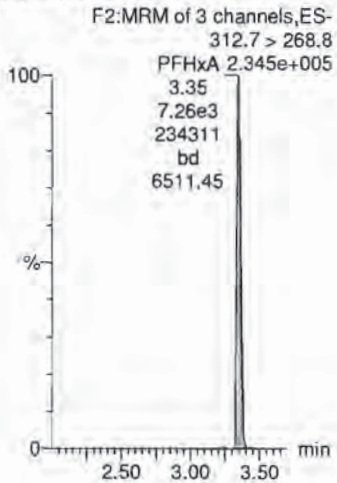

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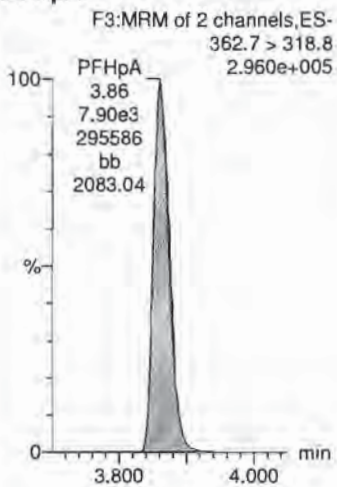

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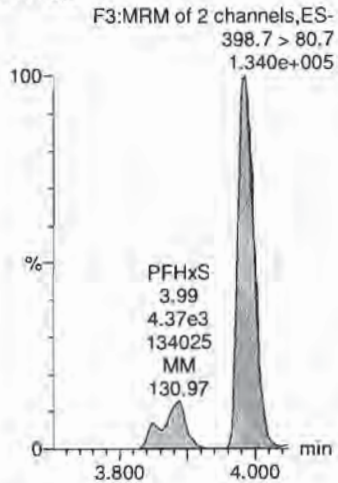

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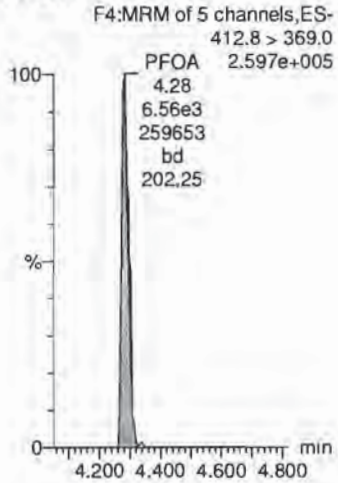

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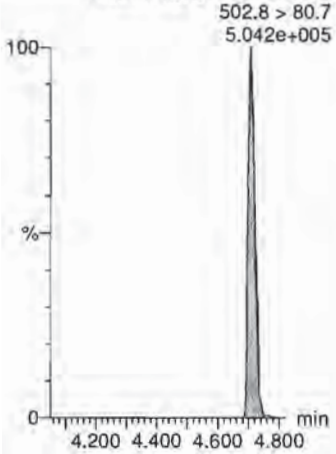

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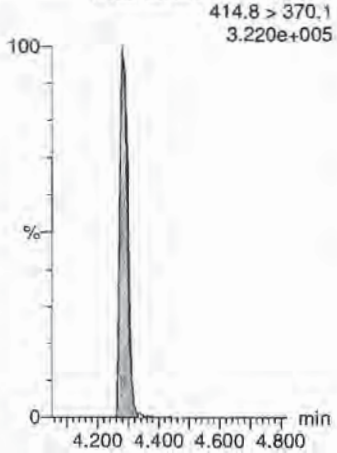

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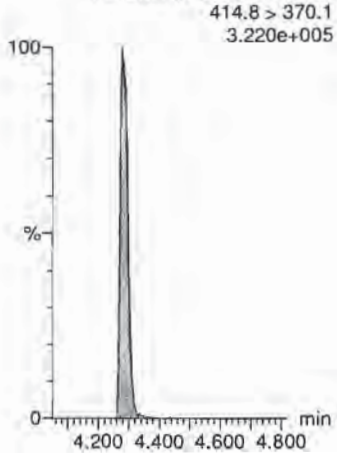

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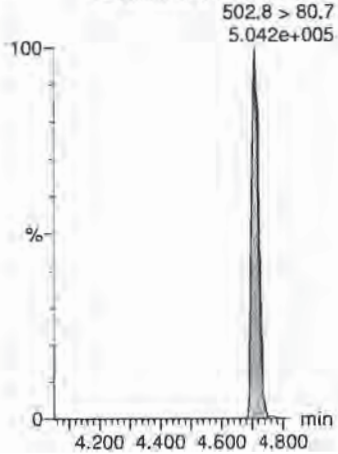

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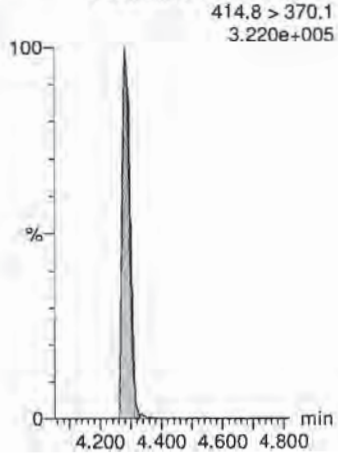

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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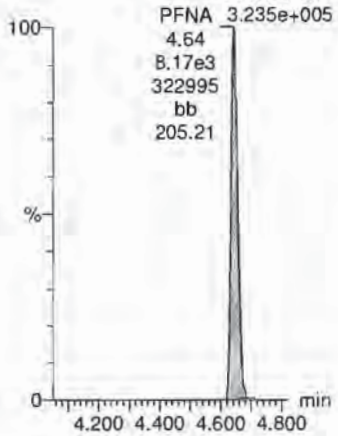

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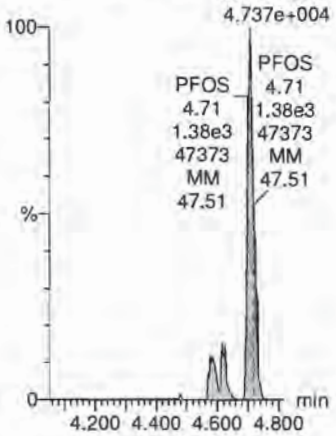

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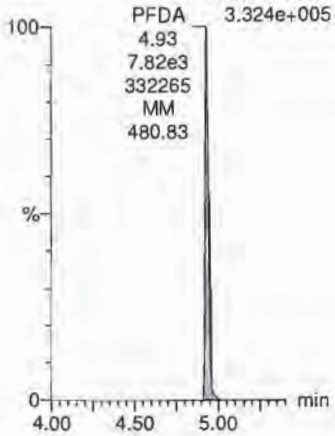

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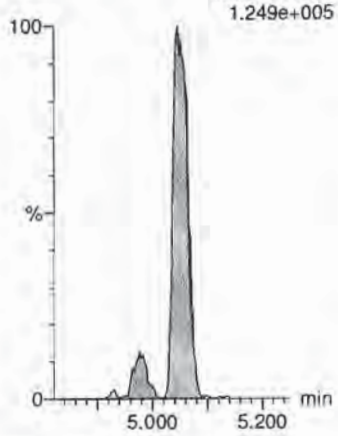

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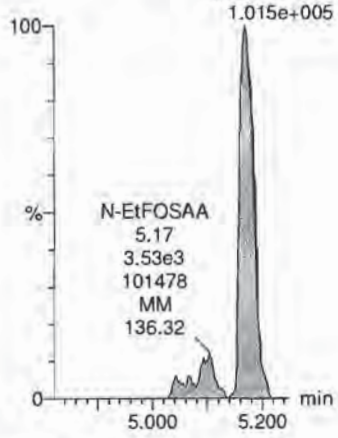

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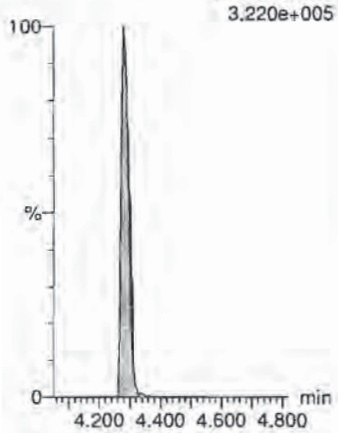

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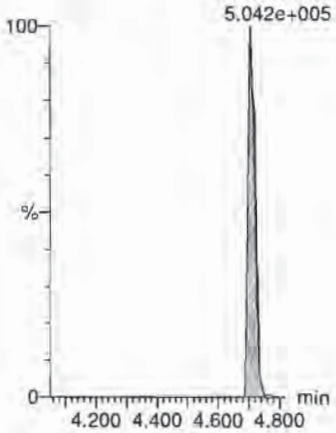

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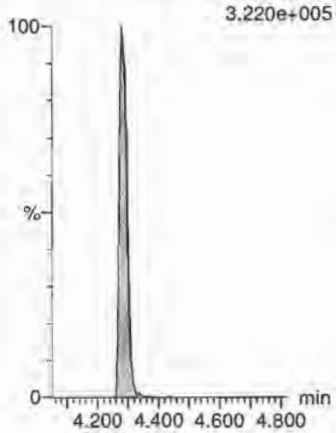

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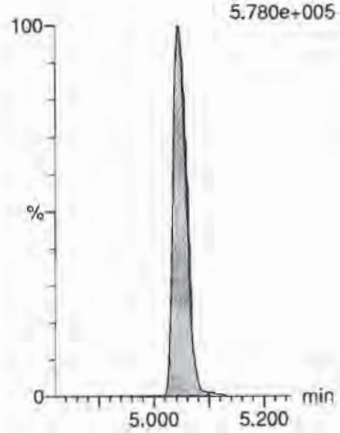

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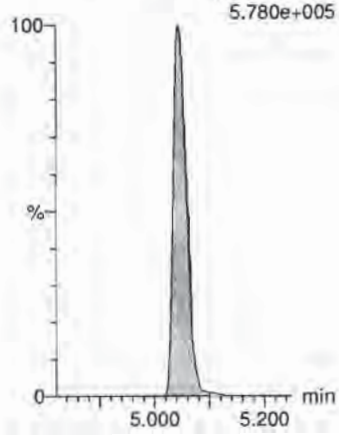

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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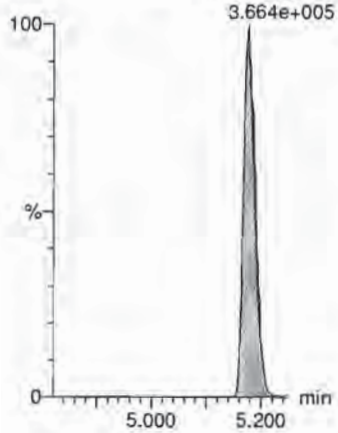

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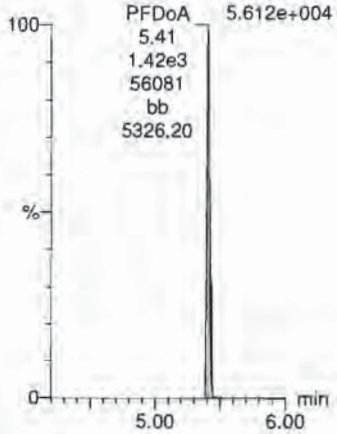

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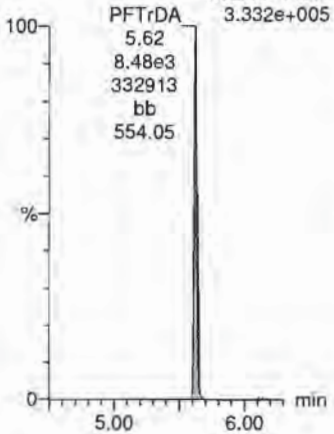

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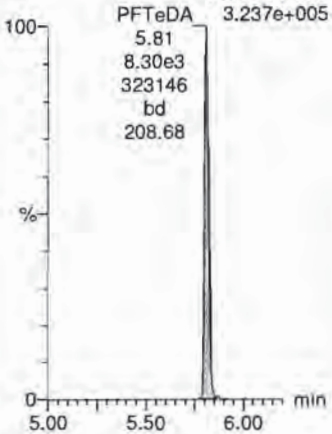

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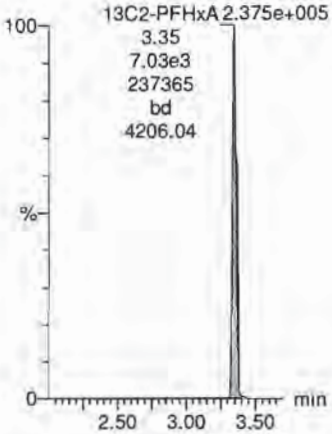

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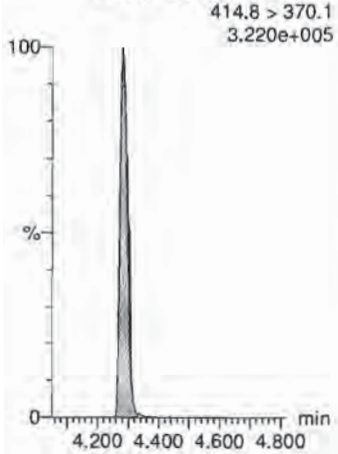

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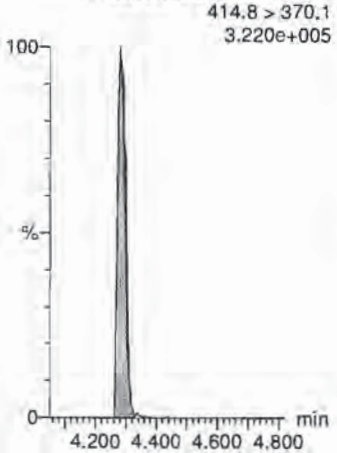

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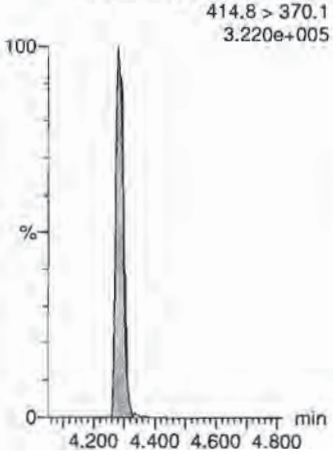

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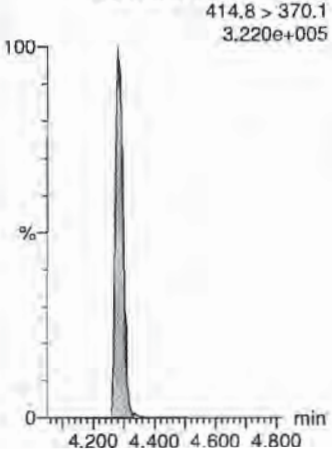

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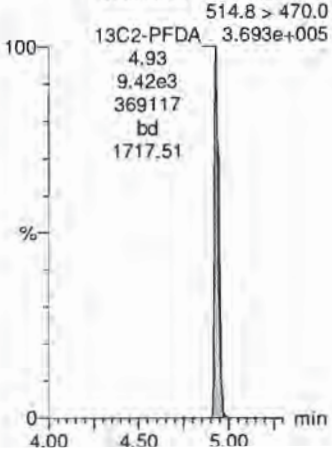

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_7, Date: 19-Jul-2018, Time: 16:07:29, ID: ST180719G3-6 PFC CS1 537 18G1806, Description: PFC CS1 537 18G1806

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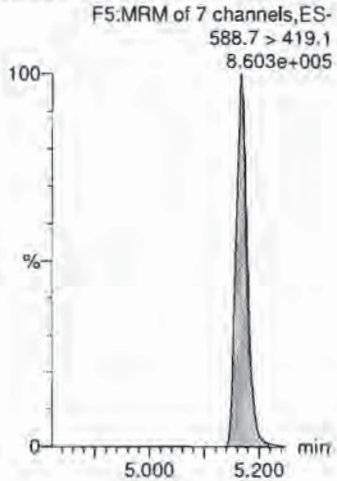

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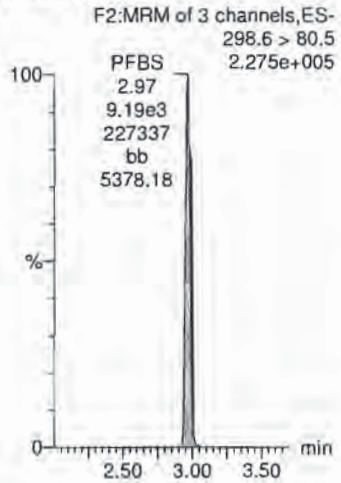

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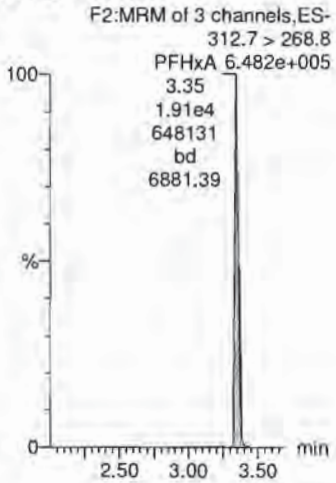

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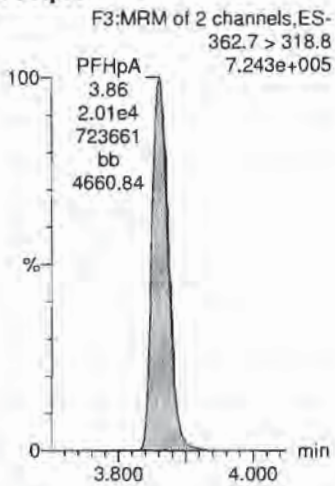

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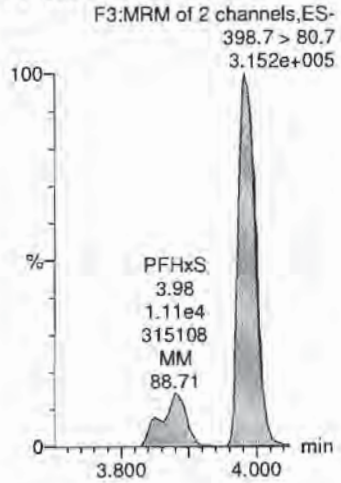

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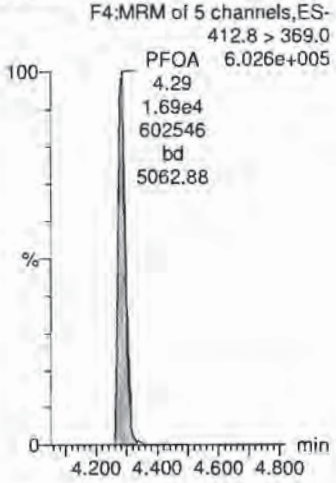

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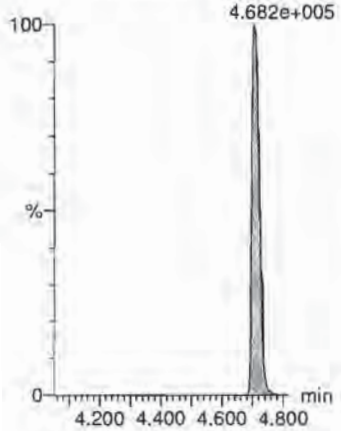

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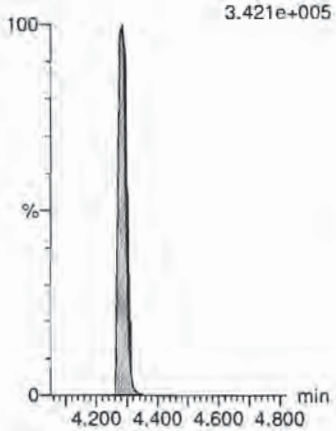

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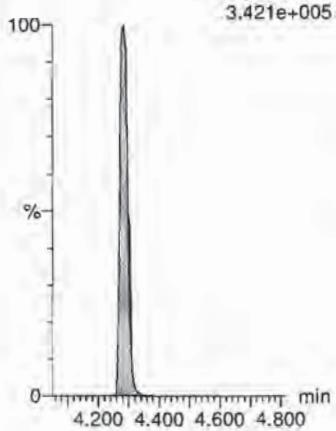

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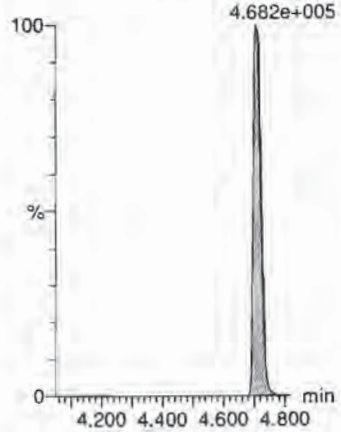

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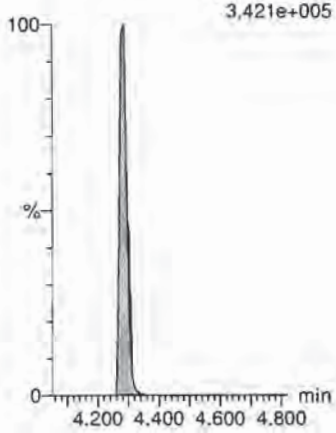

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Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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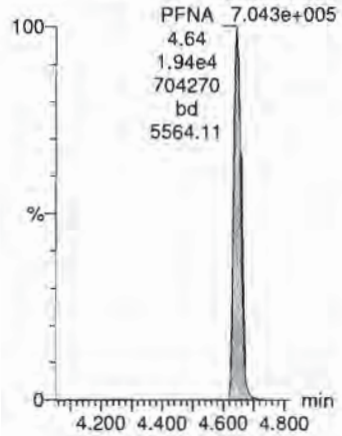

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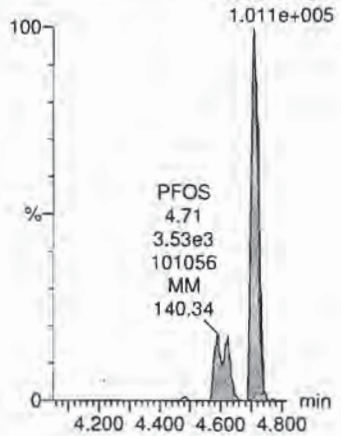

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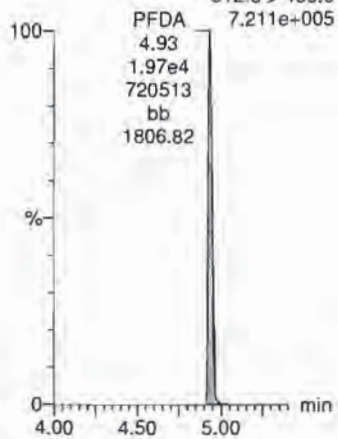

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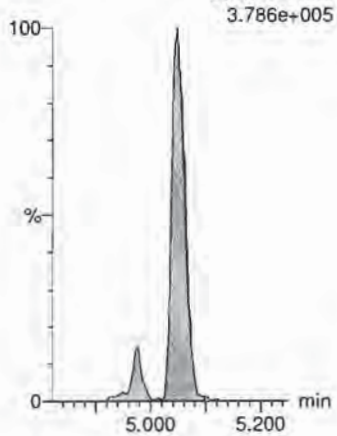

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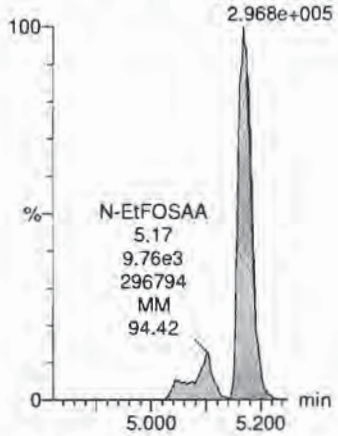

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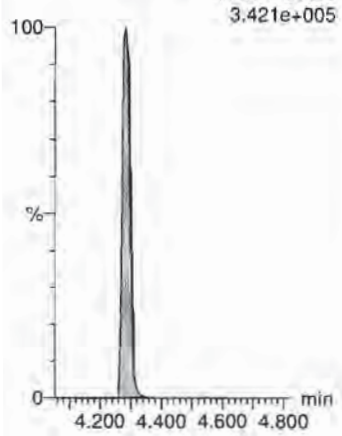

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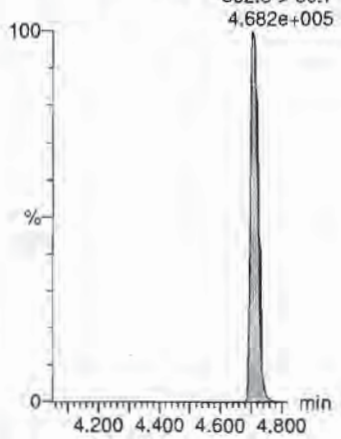

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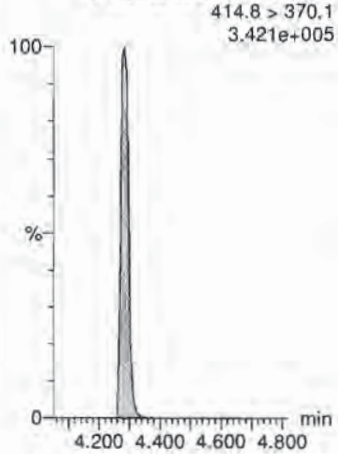

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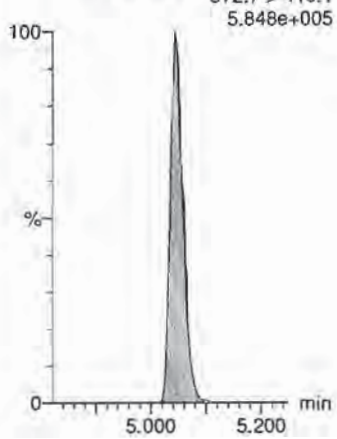

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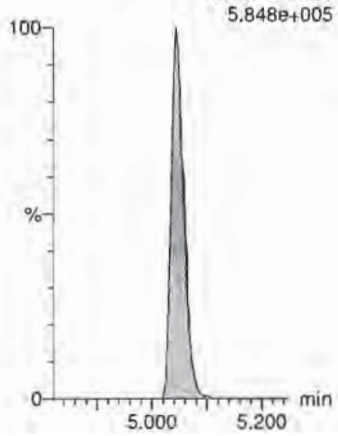

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Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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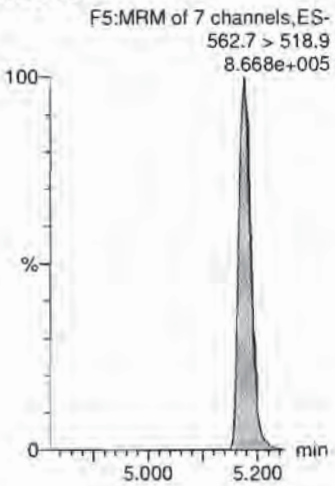

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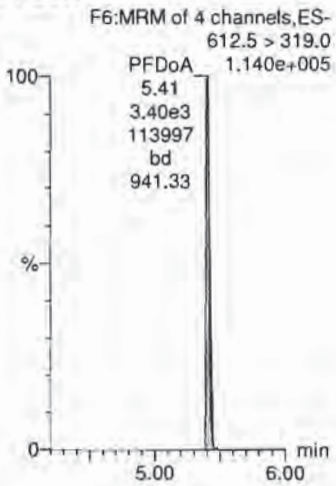

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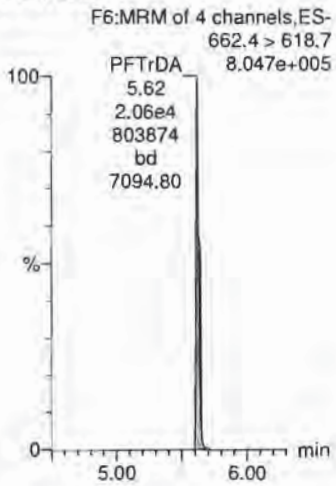

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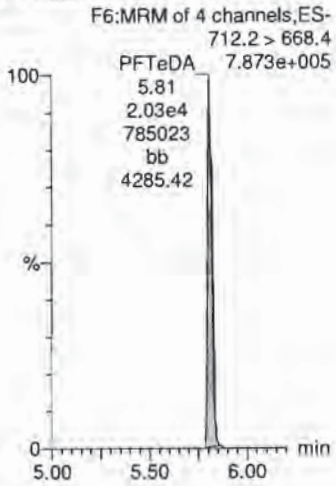

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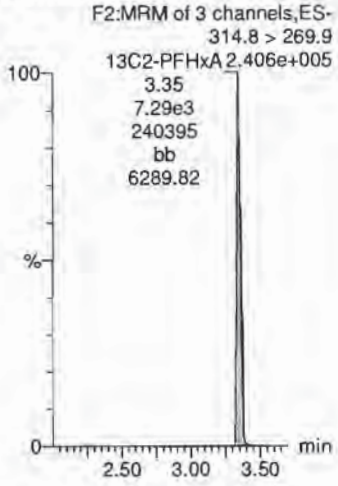

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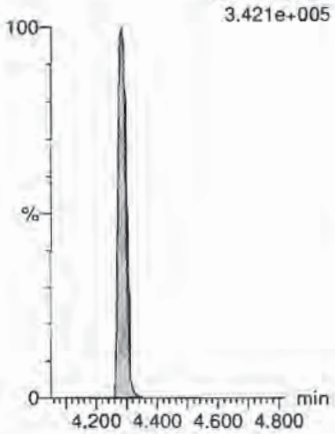

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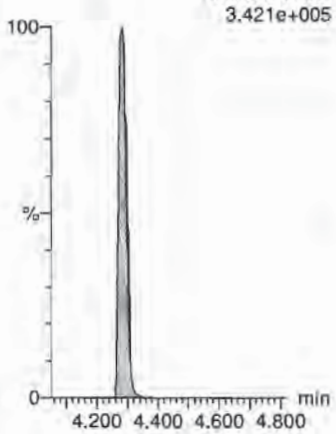

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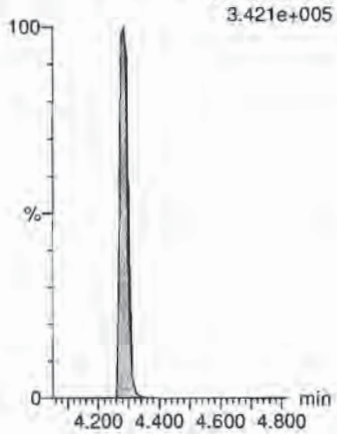

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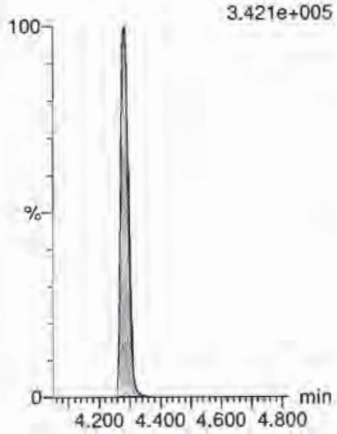

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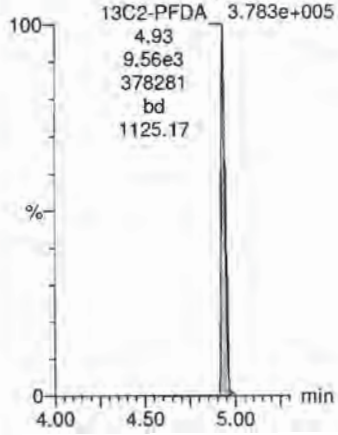

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Name: 180719G3_8, Date: 19-Jul-2018, Time: 16:20:19, ID: ST180719G3-7 PFC CS2 537 18G1807, Description: PFC CS2 537 18G1807

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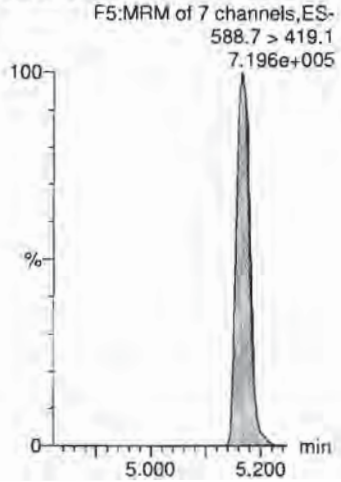

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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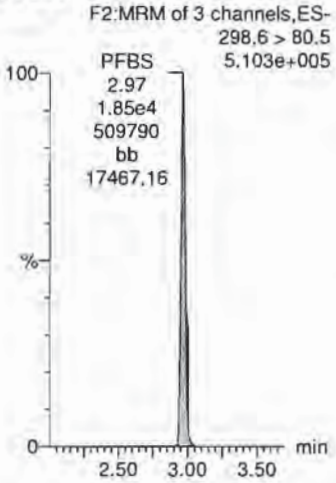

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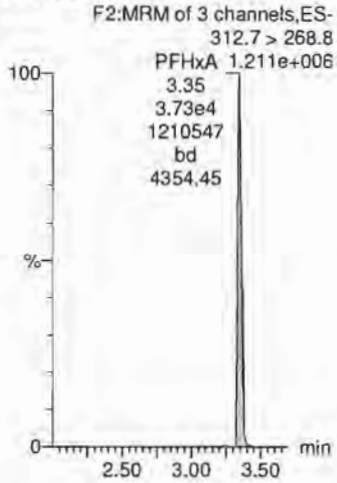

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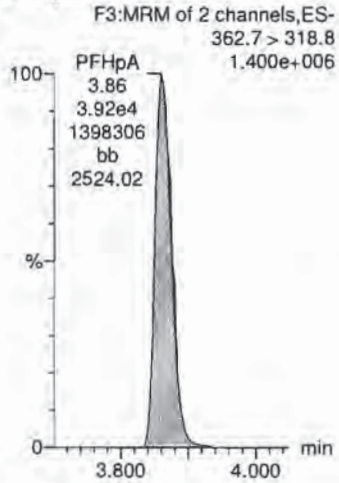

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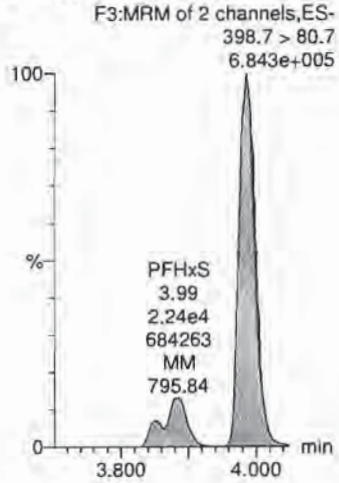

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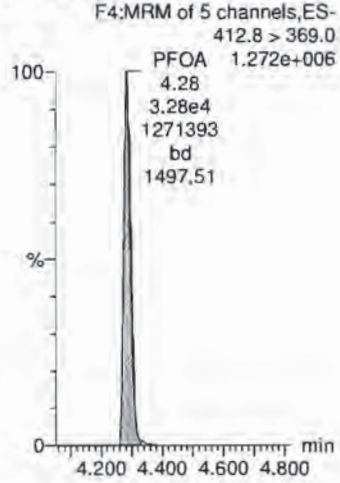

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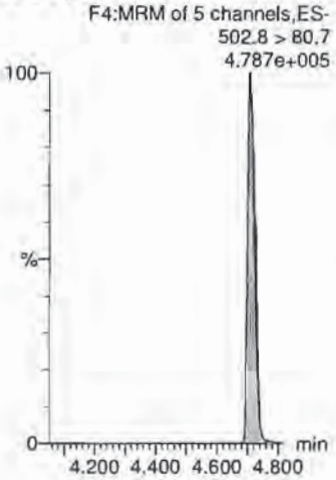

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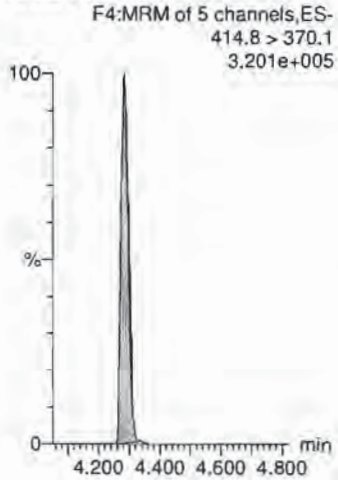

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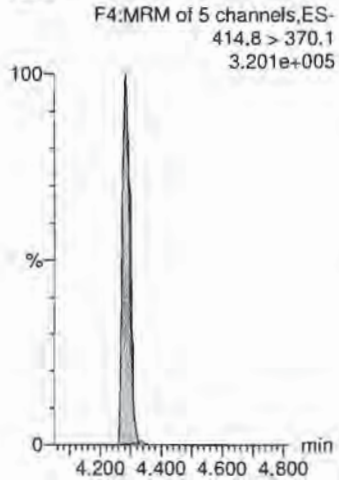

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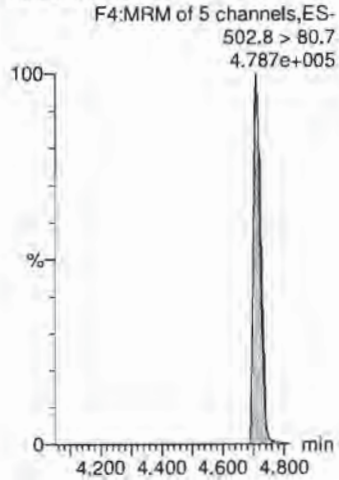

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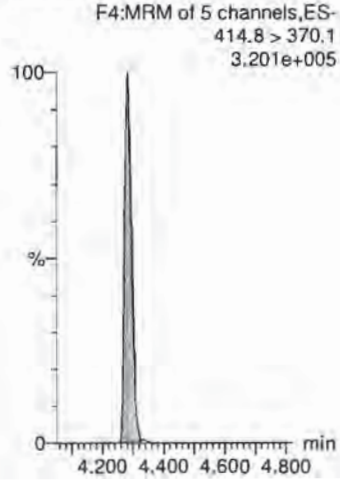

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Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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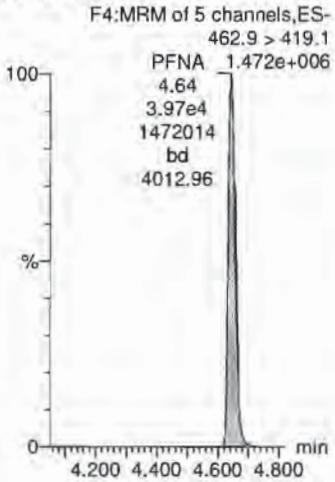

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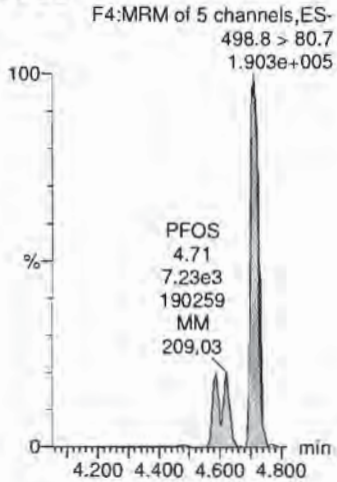

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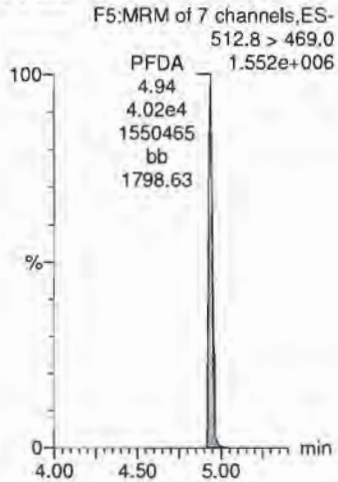

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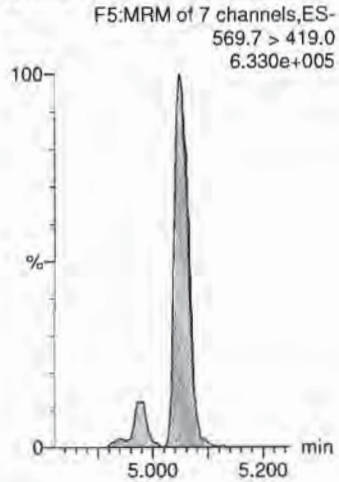

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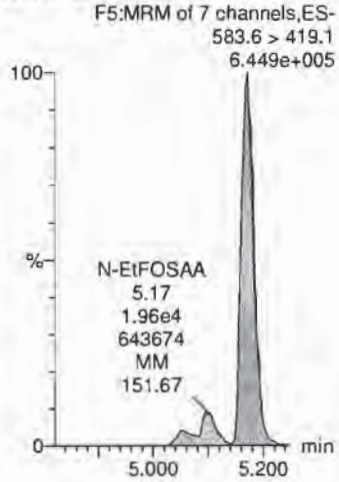

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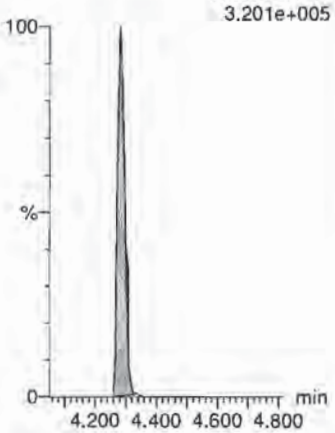

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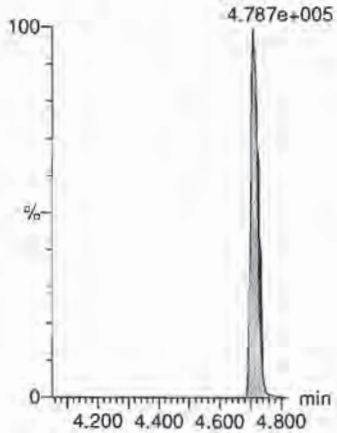

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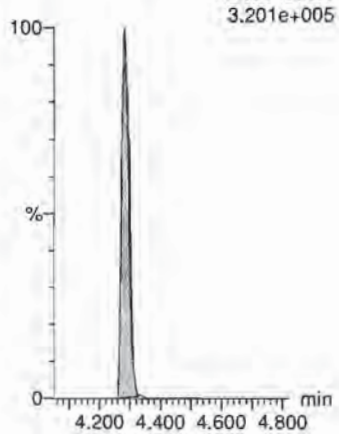

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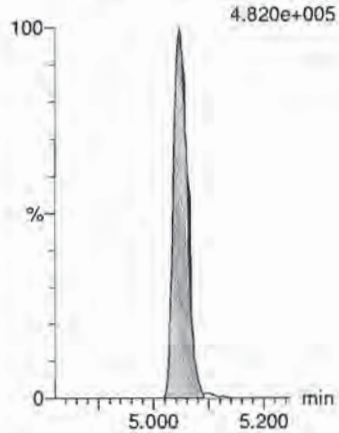

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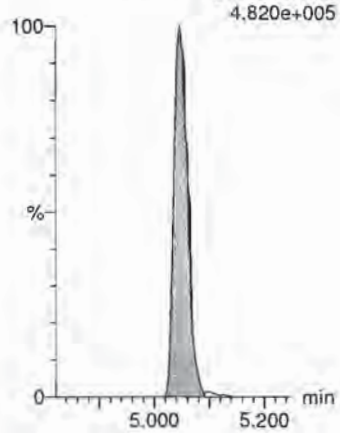

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Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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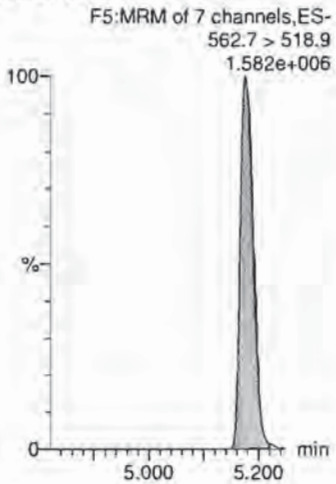

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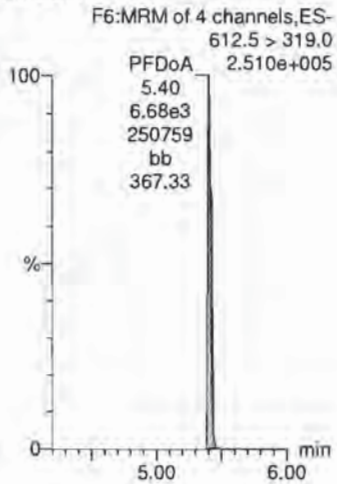

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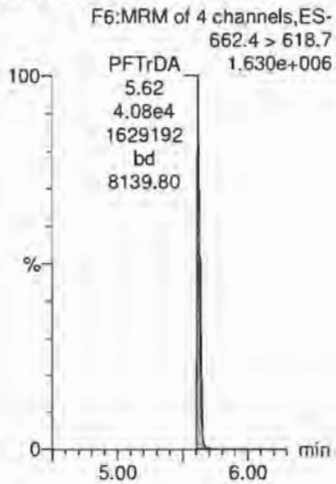

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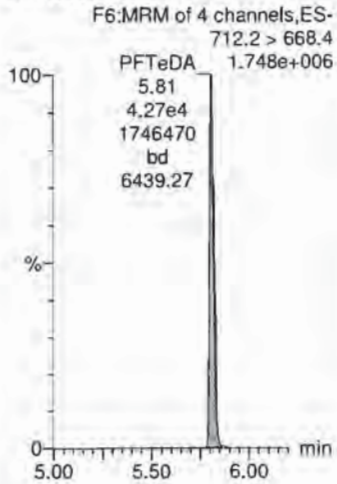

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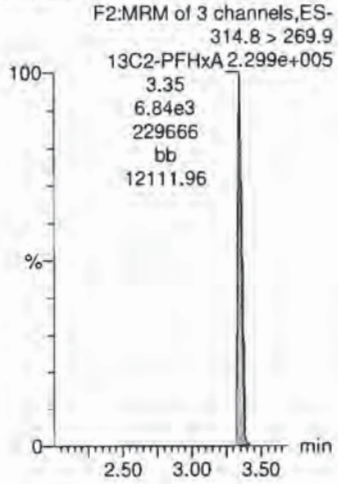

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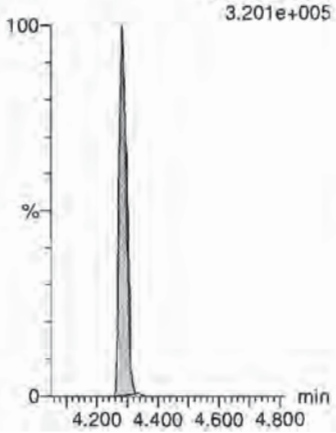

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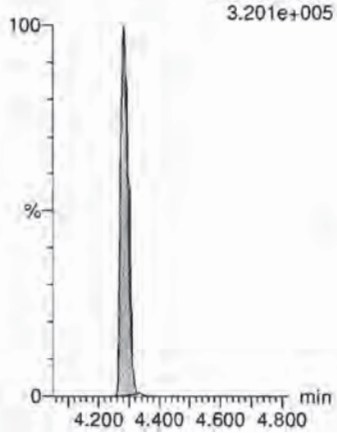

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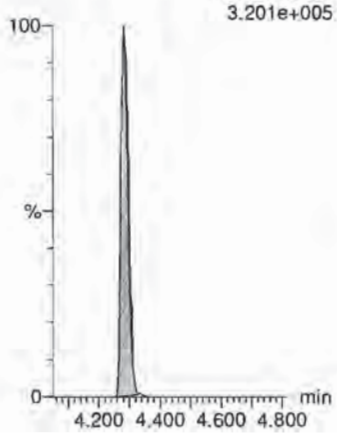

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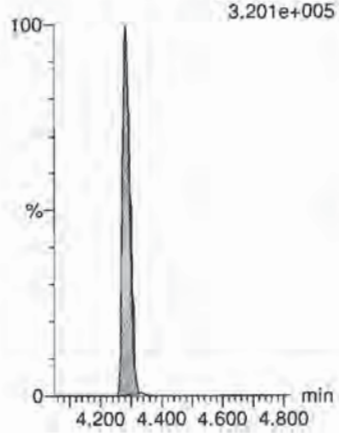

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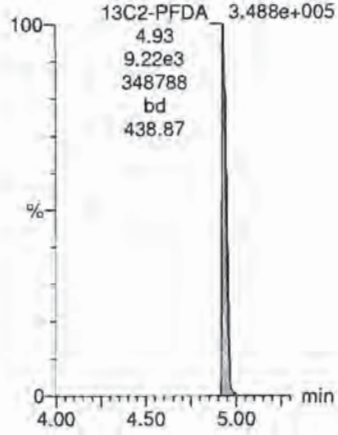

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Name: 180719G3_9, Date: 19-Jul-2018, Time: 16:33:10, ID: ST180719G3-8 PFC CS3 537 18G1808, Description: PFC CS3 537 18G1808

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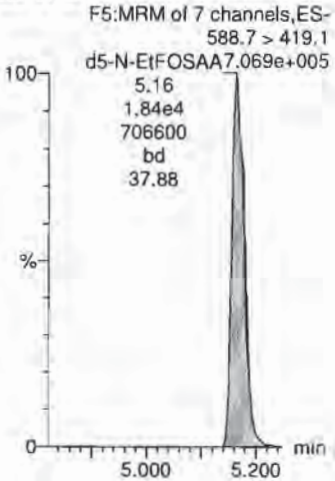

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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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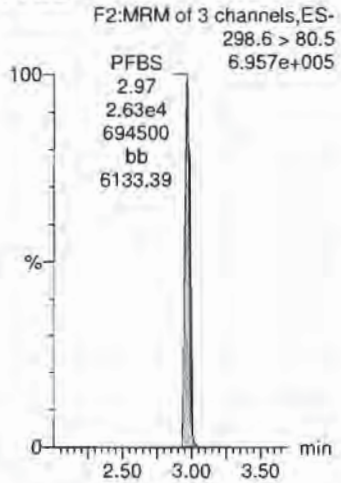

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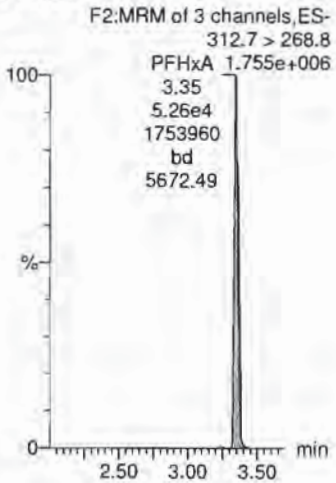

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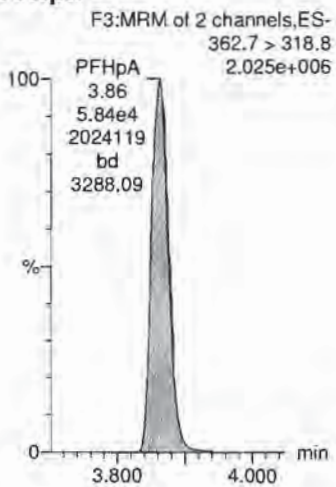

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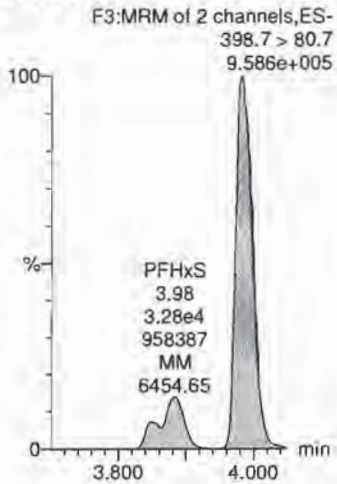

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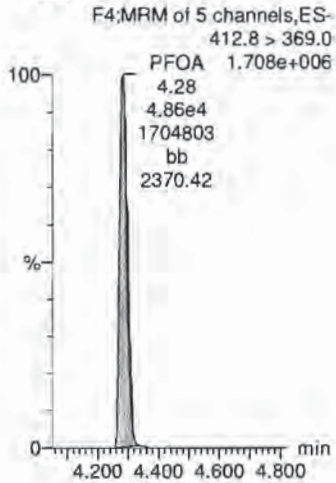

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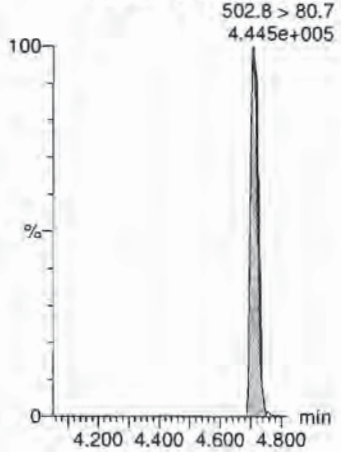

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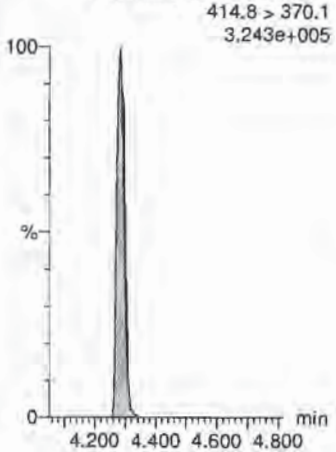

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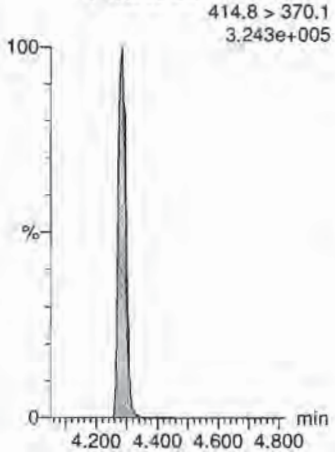

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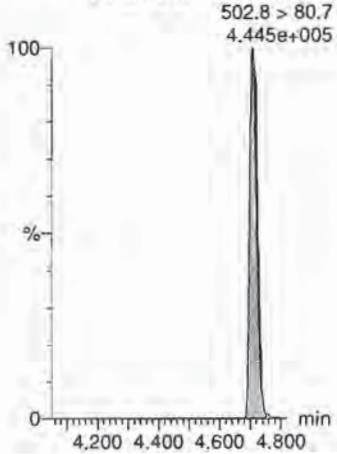

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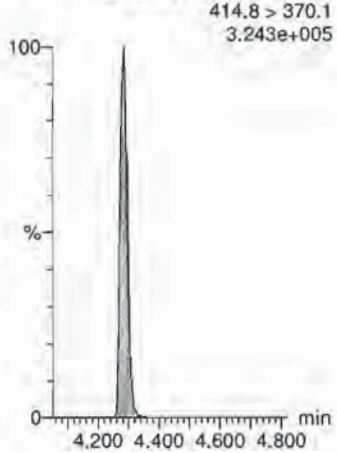

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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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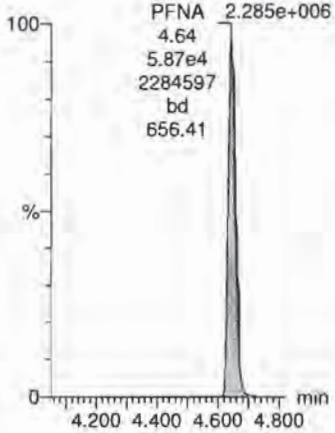

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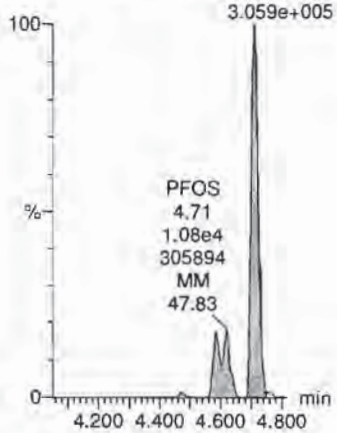

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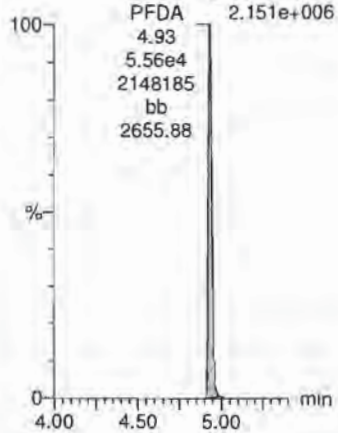

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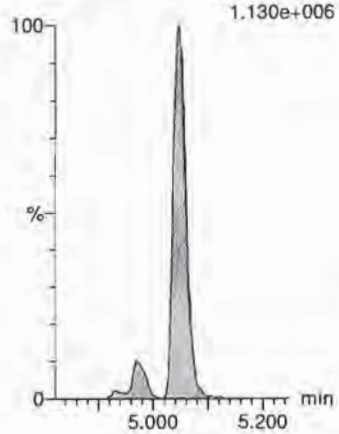

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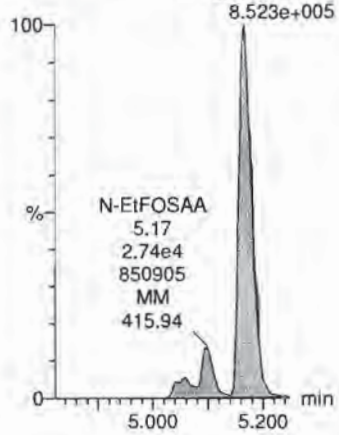

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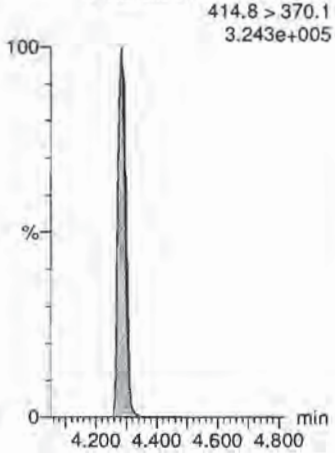

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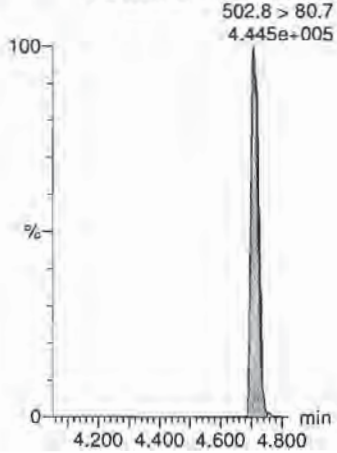

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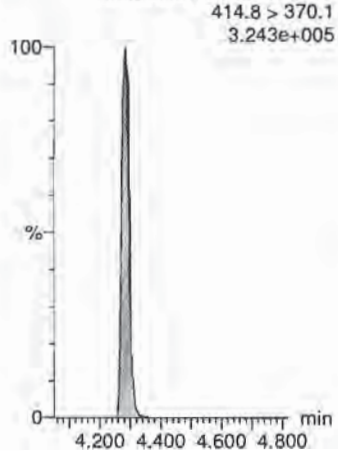

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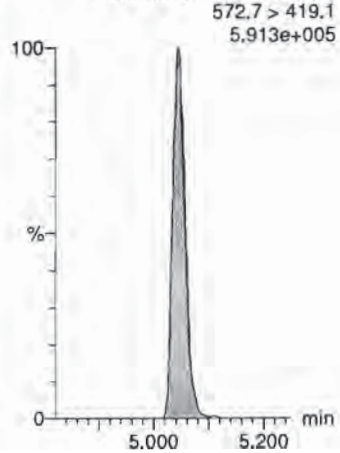

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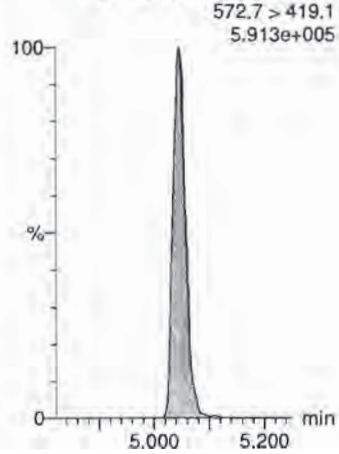

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Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

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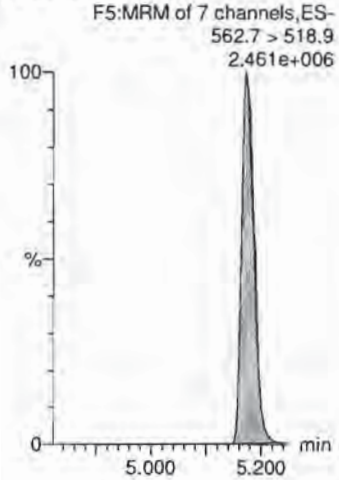
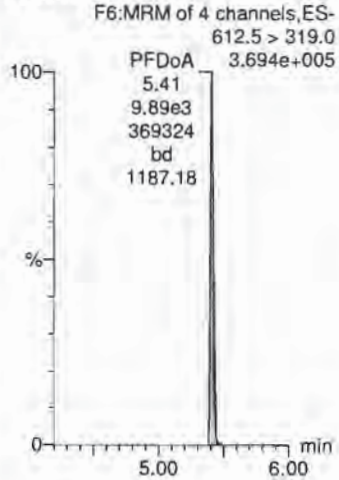


PFDoA



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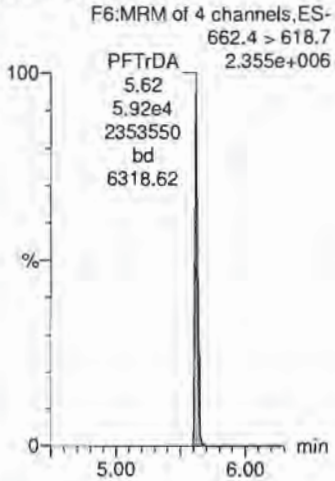
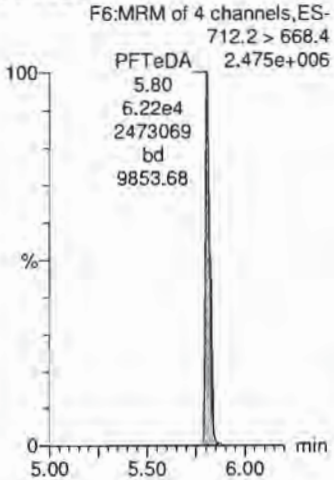
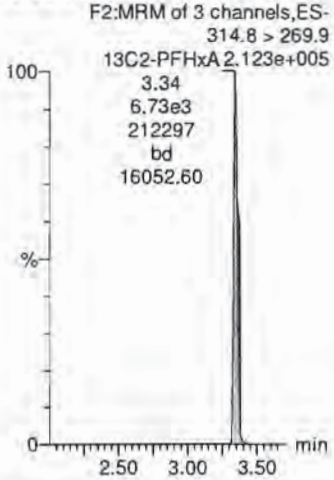


PFTeDA



13C2-PFHxA



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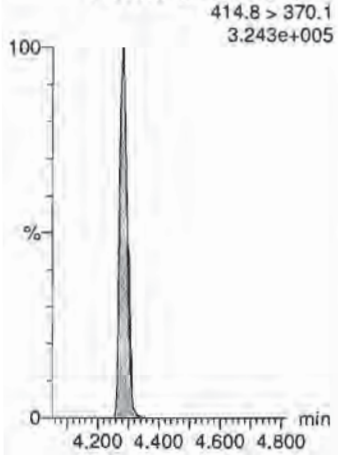

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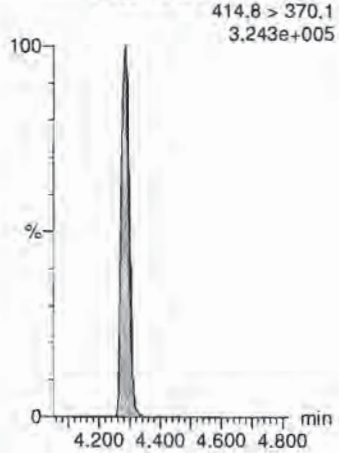

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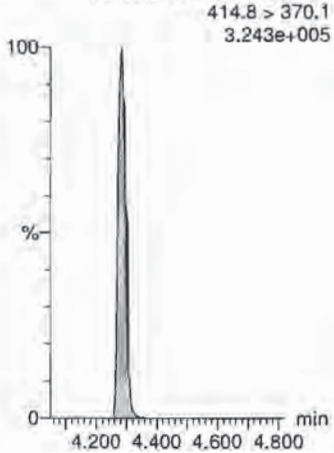

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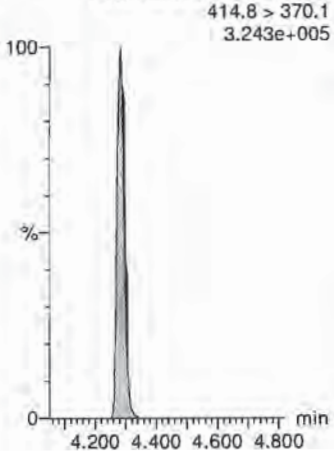

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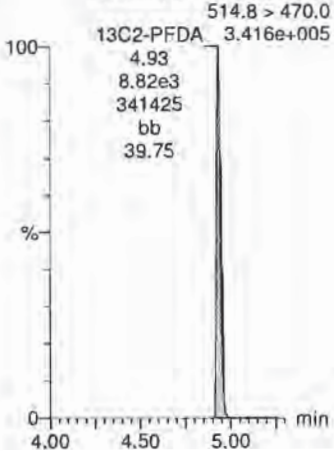

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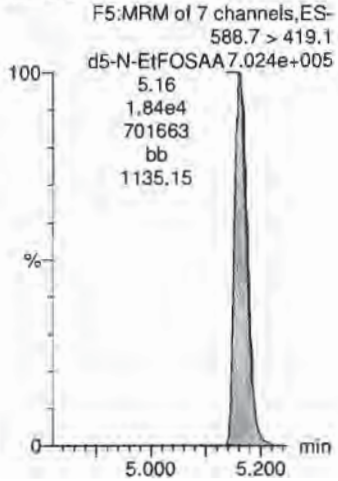
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_10, Date: 19-Jul-2018, Time: 16:45:58, ID: ST180719G3-9 PFC CS4 537 18G1809, Description: PFC CS4 537 18G1809

d5-N-EtFOSAA



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Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
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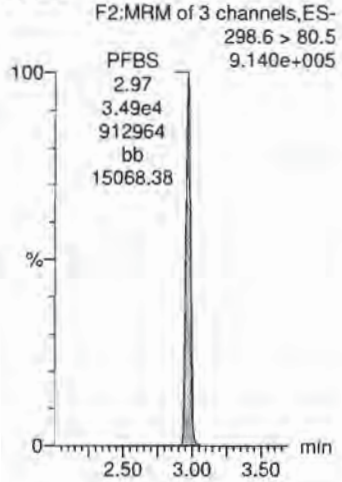
Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

PFBS



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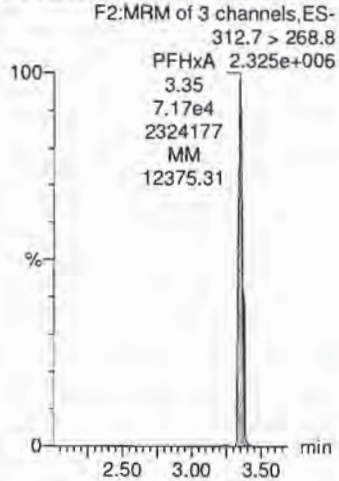

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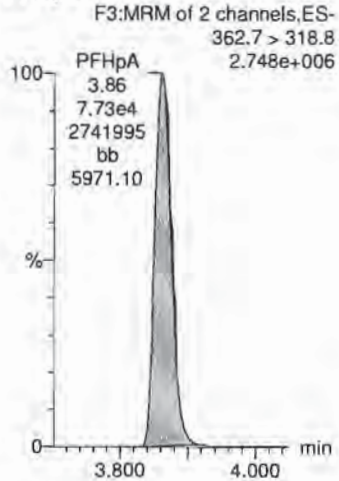

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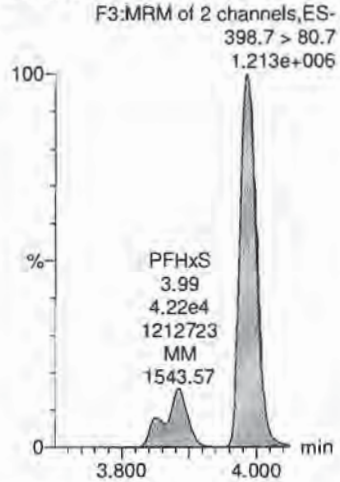
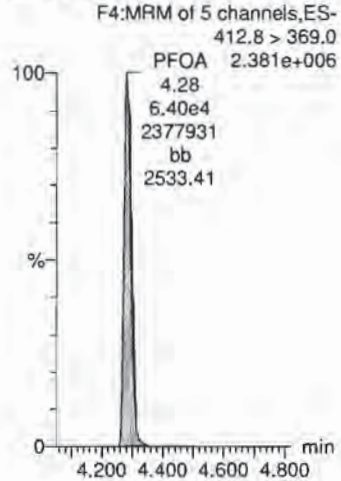


PFOA



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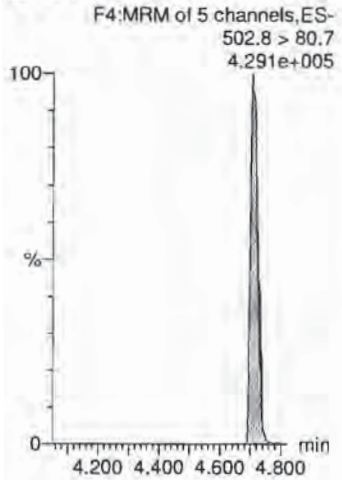

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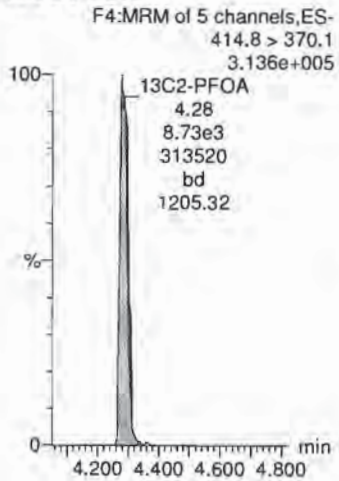

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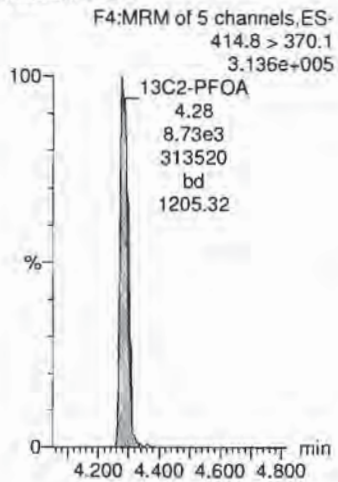

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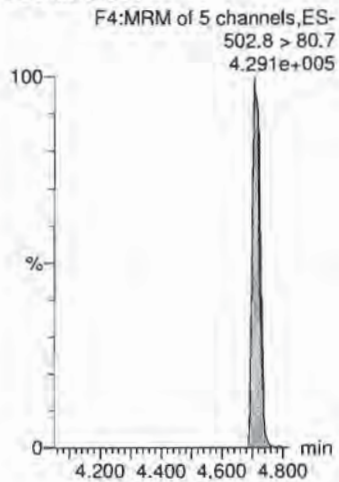

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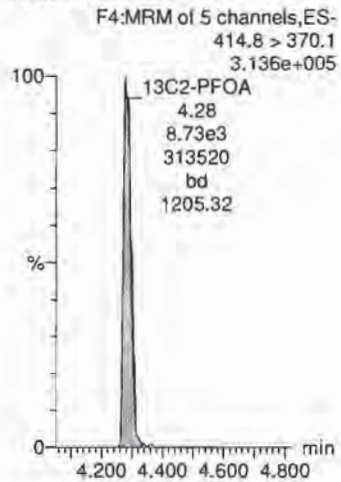
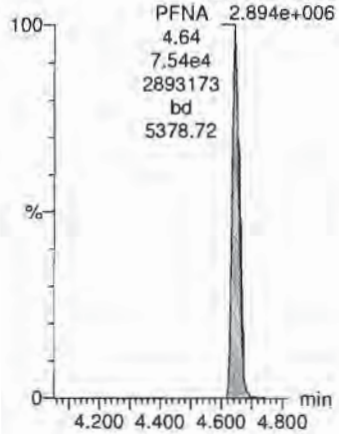


Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-CRV.qld

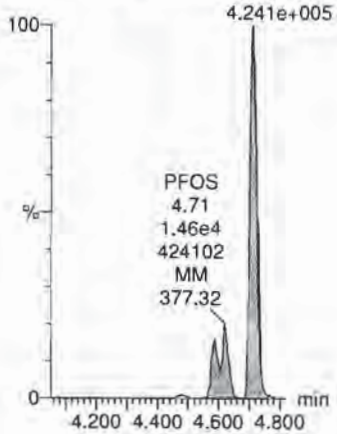
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

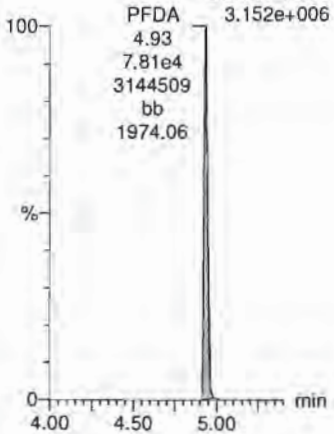
PFNA



PFOS



PFDA



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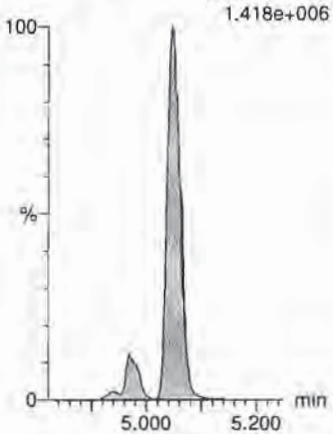

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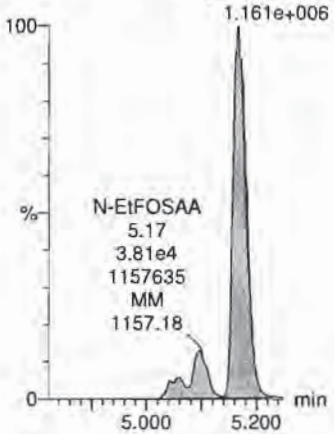

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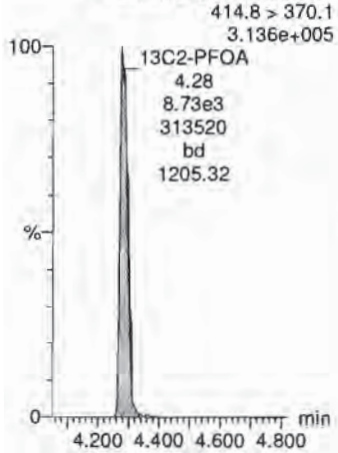

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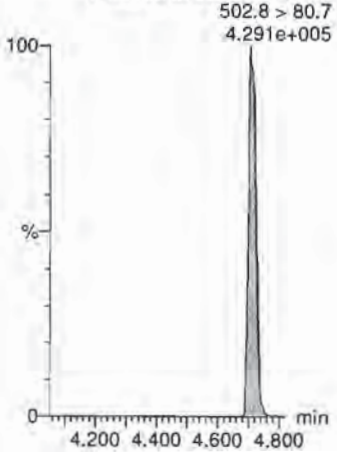

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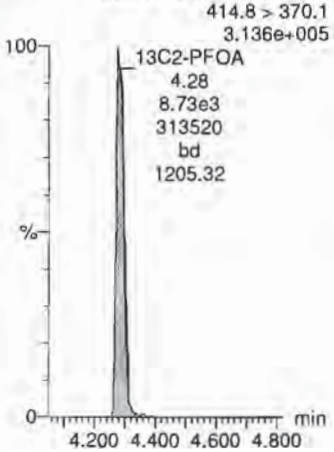

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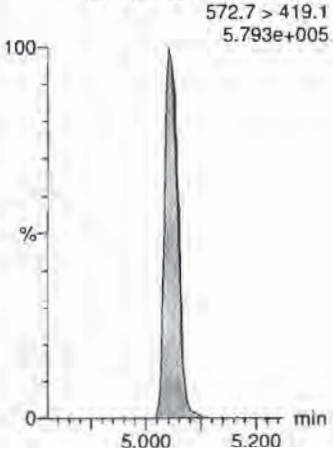

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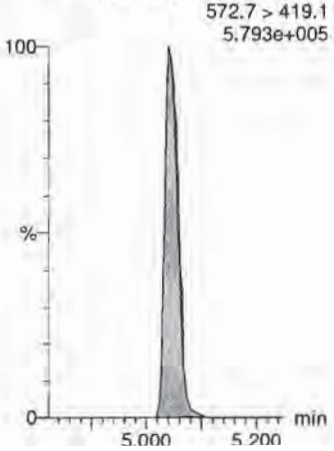

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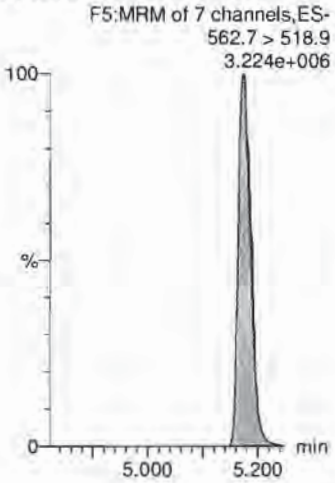
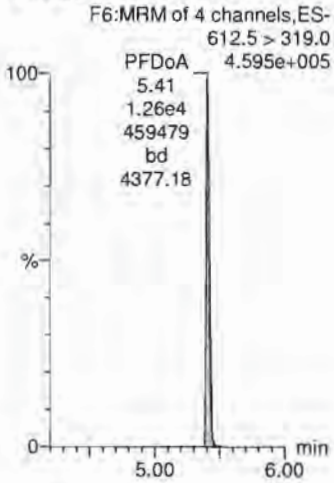
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

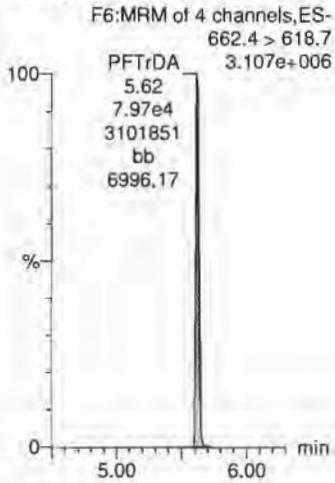
PFUnA



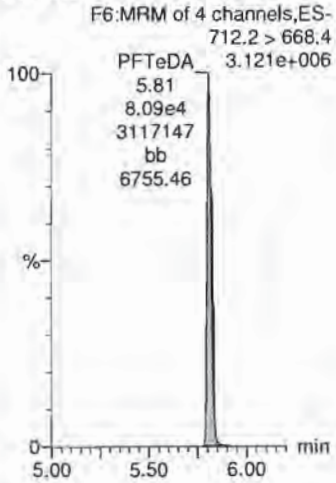
PFDoA



PFTrDA



PFTeDA



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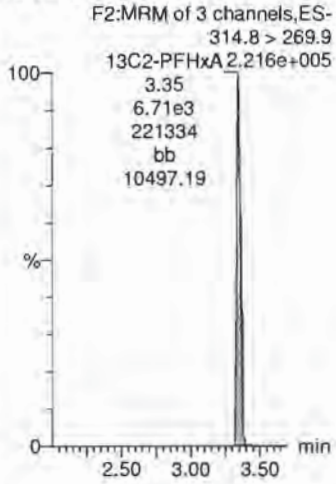

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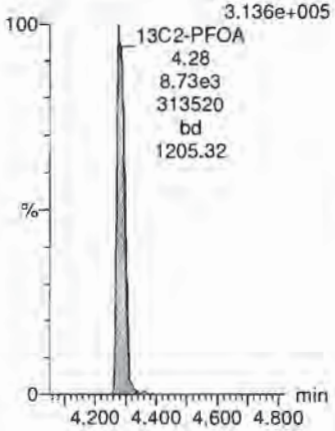

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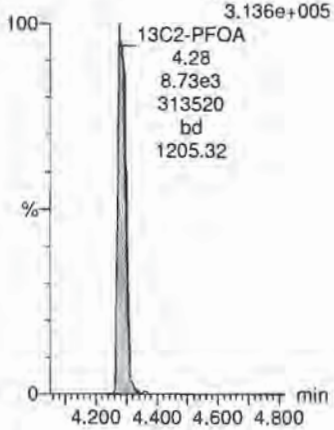

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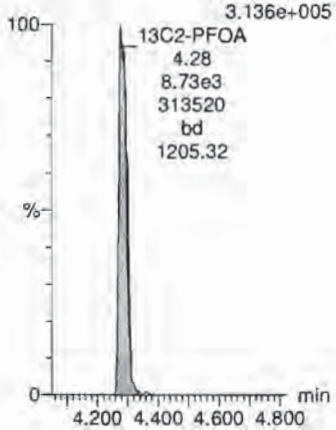

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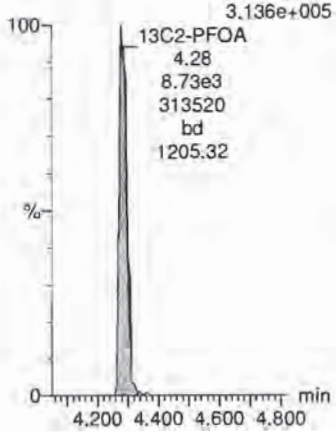

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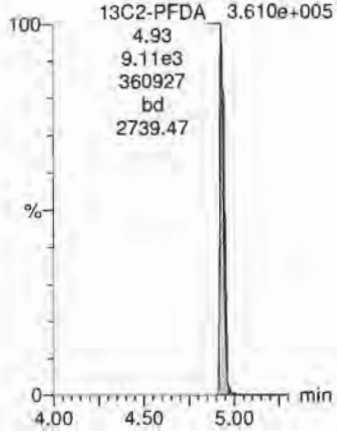

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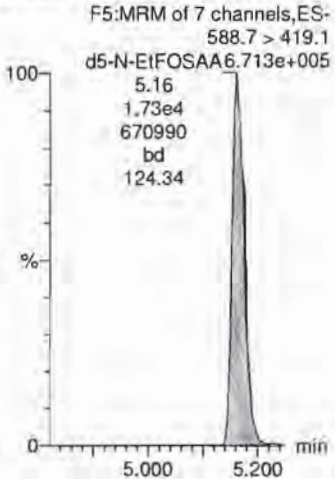
Last Altered: Friday, July 20, 2018 12:31:35 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:40:57 Pacific Daylight Time

Name: 180719G3_11, Date: 19-Jul-2018, Time: 16:58:48, ID: ST180719G3-10 PFC CS5 537 18G1810, Description: PFC CS5 537 18G1810

d5-N-EtFOSAA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

JAD 7/20/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	298.6> 80.5	4.66e3	1.35e4	1.00		2.96	2.97	9.90	10.4	104.1
2	2	PFHxA	312.7 > 268.8	8.30e3	1.01e4	1.00		3.35	3.35	8.23	10.1	101.2
3	3	PFHpA	362.7 > 318.8	9.01e3	1.01e4	1.00		3.86	3.86	8.93	10.2	101.8
4	4	PFHxS	398.7 > 80.7	5.35e3	1.35e4	1.00		3.98	3.99	11.3	10.1	100.5
5	5	PFOA	412.8 > 369.0	7.22e3	1.01e4	1.00		4.29	4.28	7.16	9.81	98.1
6	6	PFNA	462.9 > 419.1	9.36e3	1.01e4	1.00		4.65	4.64	9.27	10.6	106.5
7	7	PFOS	498.8 >80.7	1.61e3	1.35e4	1.00		4.70	4.71	3.43	9.27	92.7
8	8	PFDA	512.8 > 469.0	8.59e3	1.01e4	1.00		4.93	4.93	8.52	9.77	97.7
9	9	N-MeFOSAA	569.7 > 419.0	4.79e3	1.68e4	1.00		5.05	5.04	11.4	9.83	98.3
10	10	N-EtFOSAA	583.6 >419.1	4.15e3	1.68e4	1.00		5.17	5.17	9.85	9.88	98.8
11	11	PFUnA	562.7 > 518.9	9.54e3	1.01e4	1.00		5.17	5.17	9.46	9.84	98.4
12	12	PFDoA	612.5 > 319.0	1.56e3	1.01e4	1.00		5.41	5.41	1.55	10.5	105.2
13	13	PFTrDA	662.4 > 618.7	8.72e3	1.01e4	1.00		5.62	5.62	8.64	9.58	95.8
14	14	PFTeDA	712.2>668.4	9.24e3	1.01e4	1.00		5.81	5.81	9.16	9.89	98.9
15	15	13C2-PFHxA	314.8 > 269.9	7.91e3	1.01e4	1.00	0.753	3.44	3.34	7.84	10.4	104.2
16	16	13C2-PFDA	514.8 > 470.0	1.02e4	1.01e4	1.00	1.023	4.88	4.93	10.1	9.92	99.2
17	17	d5-N-EtFOSAA	588.7> 419.1	2.14e4	1.68e4	1.00	1.264	5.05	5.16	50.9	40.3	100.7
18	18	13C2-PFOA	414.8 > 370.1	1.01e4	1.01e4	1.00	1.000	4.28	4.28	10.0	10.0	100.0
19	19	13C4-PFOS	502.8>80.7	1.35e4	1.35e4	1.00	1.000	4.71	4.71	28.7	28.7	100.0
20	20	d3-N-MeFOSAA	572.7 > 419.1	1.68e4	1.68e4	1.00	1.000	5.04	5.05	40.0	40.0	100.0

Cal 7/20/18

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

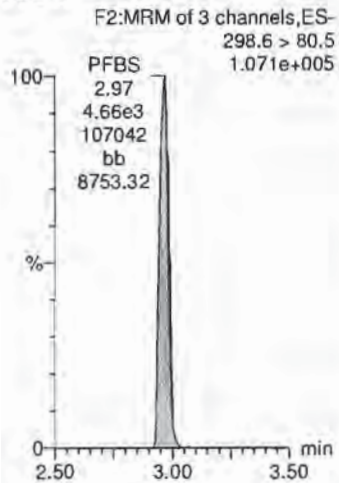
Dataset: X:\G1.PRO\Results\2018\180719G3\180719G3-ICV.qld

Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_0719.mdb 20 Jul 2018 10:54:08
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_07-19-18_L14.cdb 20 Jul 2018 12:31:35

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

PFBS



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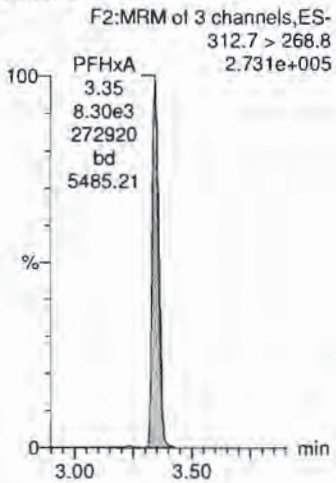

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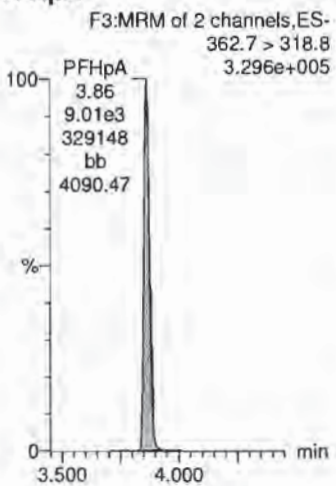

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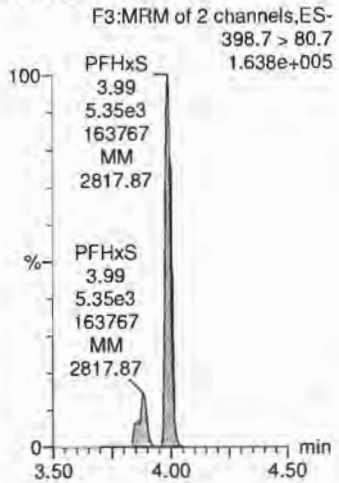
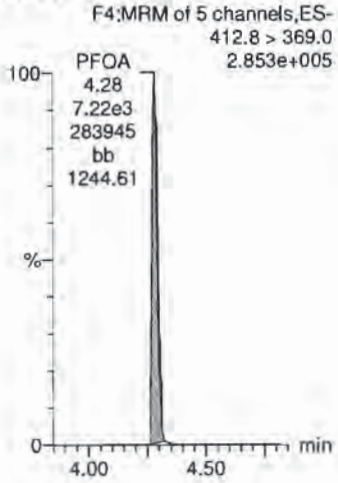
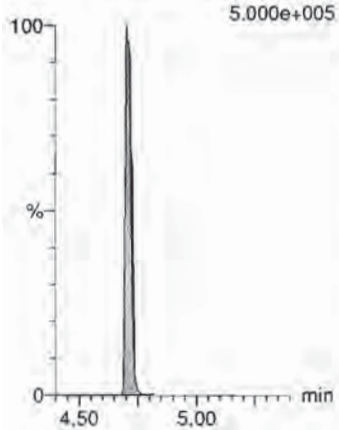


PFOA



13C4-PFOS



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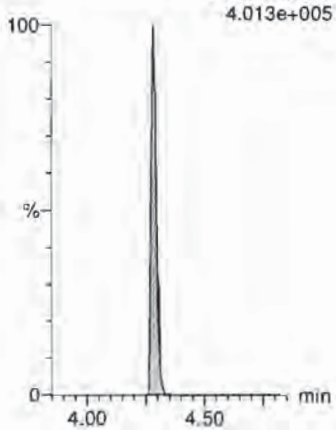

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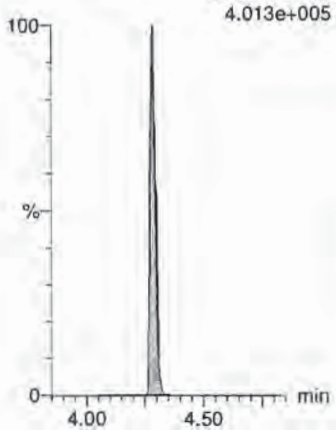

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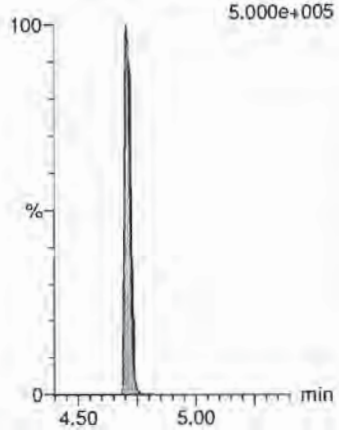

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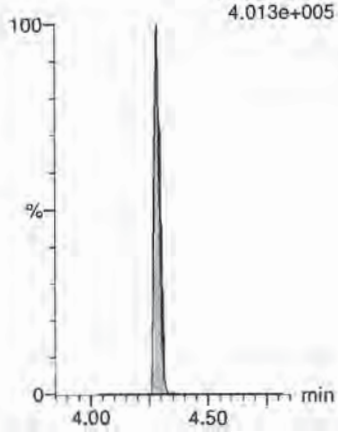

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Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

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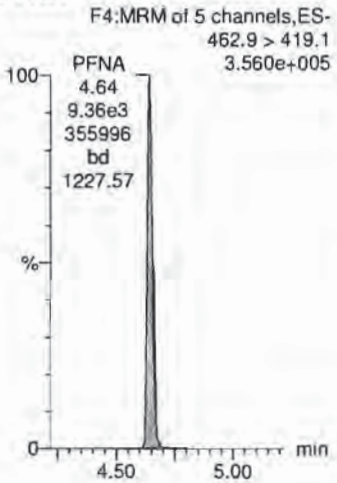

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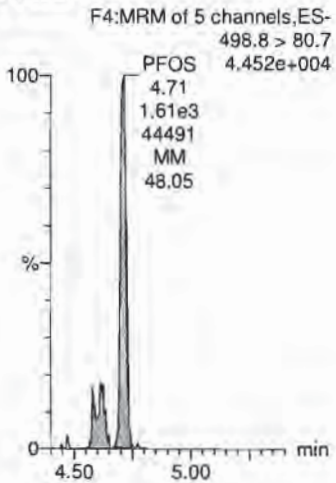

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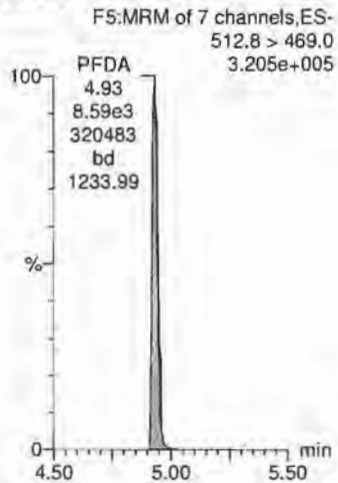

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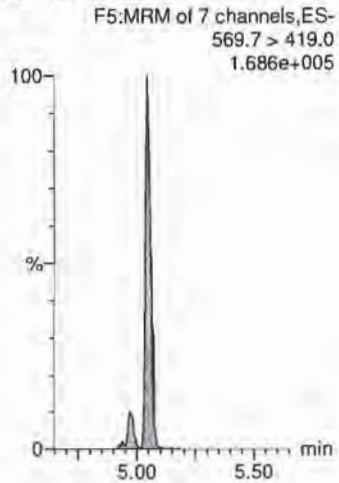

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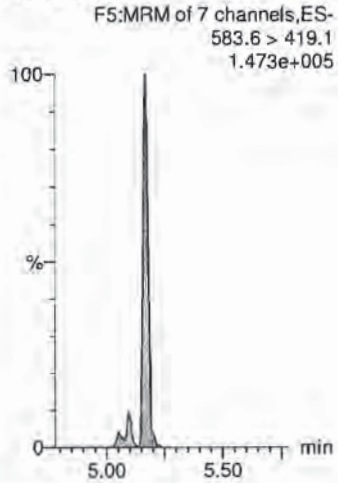

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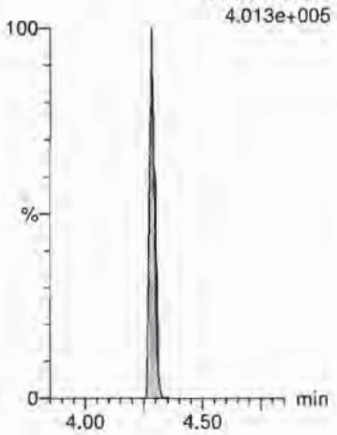

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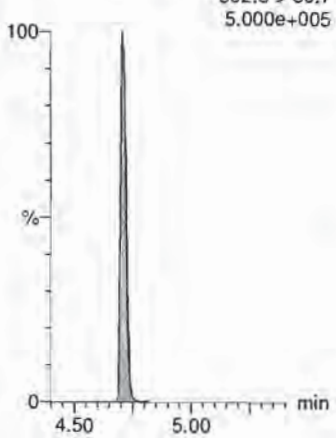

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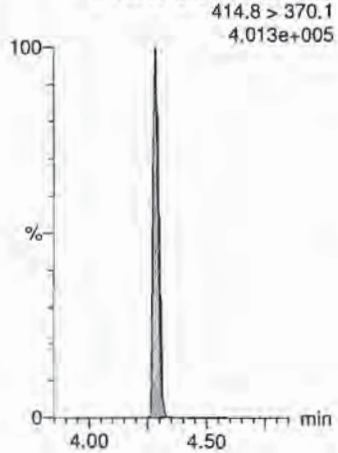

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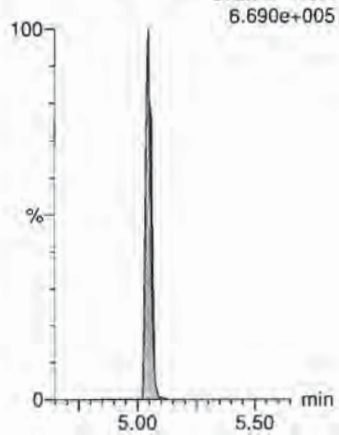

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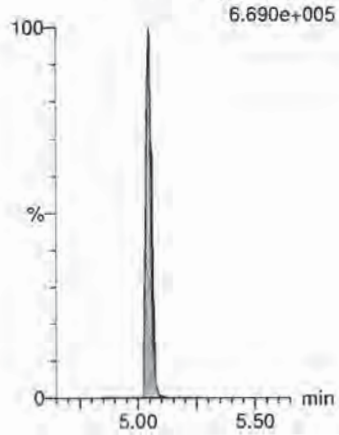

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Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

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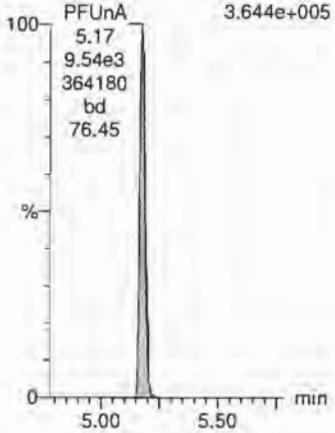
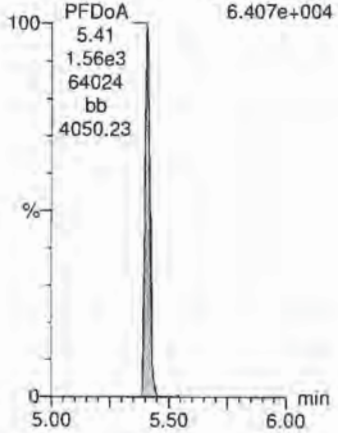


PFDoA



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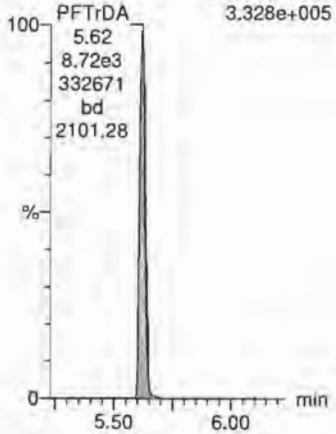

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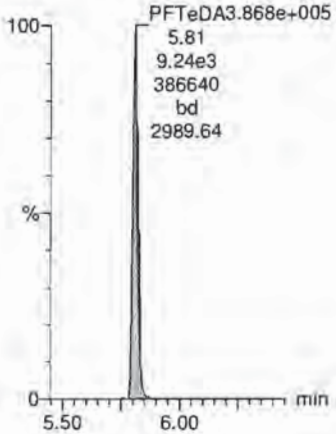

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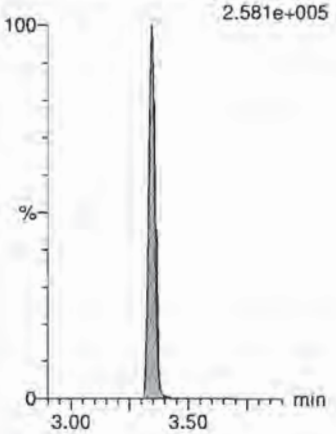

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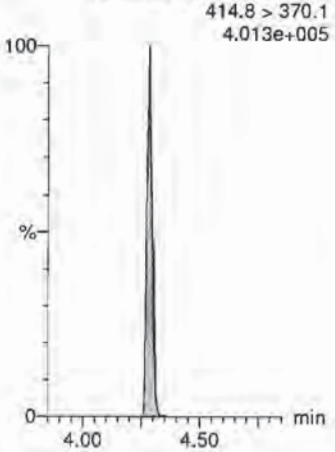

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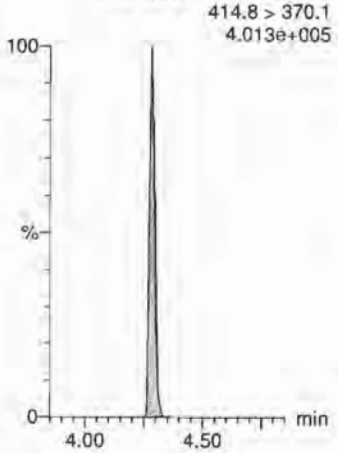

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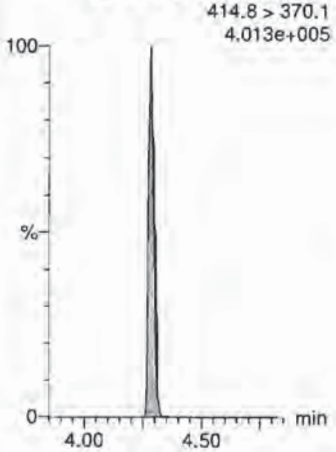

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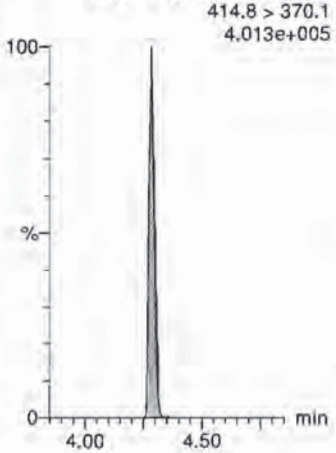

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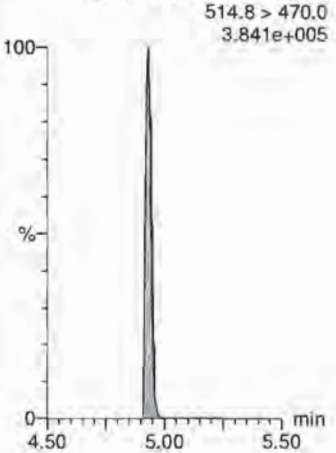

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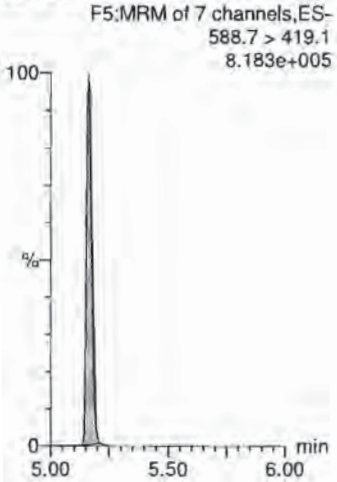
Last Altered: Friday, July 20, 2018 12:49:13 Pacific Daylight Time
Printed: Friday, July 20, 2018 12:50:06 Pacific Daylight Time

Name: 180719G3_13, Date: 19-Jul-2018, Time: 17:24:26, ID: ST180719G3-1 PFC ICV 537 18G1811, Description: PFC ICV 537 18G1811

d5-N-EtFOSAA



Vista Analytical Laboratory

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Printed: Friday, July 20, 2018 11:17:53 Pacific Daylight Time

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Name: 180719G3_12, Date: 19-Jul-2018, Time: 17:11:52, ID: IPA, Description: IPA

PFBS
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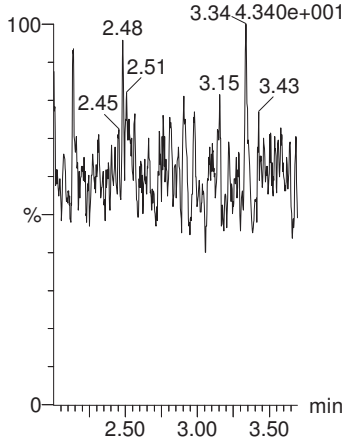

PFHxA
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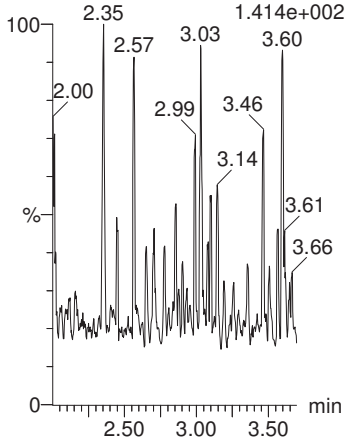

PFHpA
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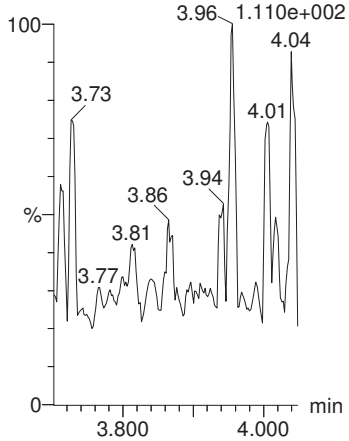

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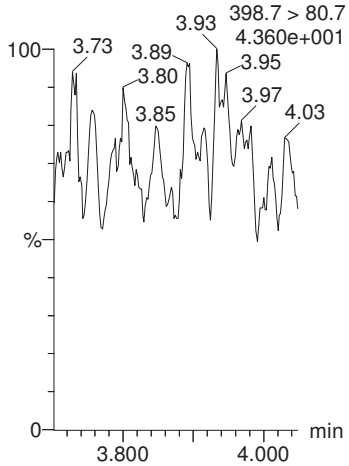

PFOA
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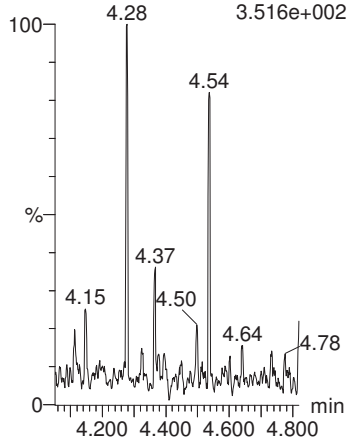

13C4-PFOS
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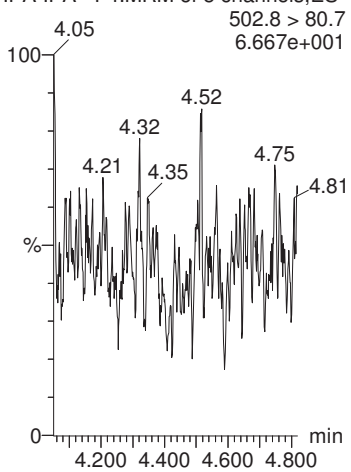
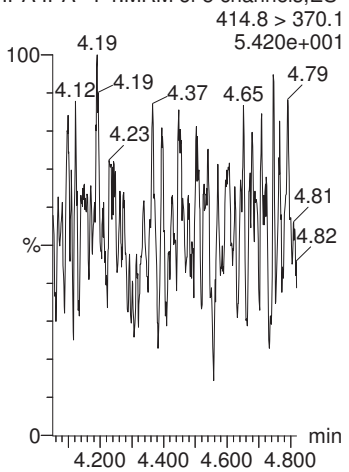


13C2-PFOA
IPA IPA F4:MRM of 5 channels,ES- 414.8 > 370.1 5.420e+001



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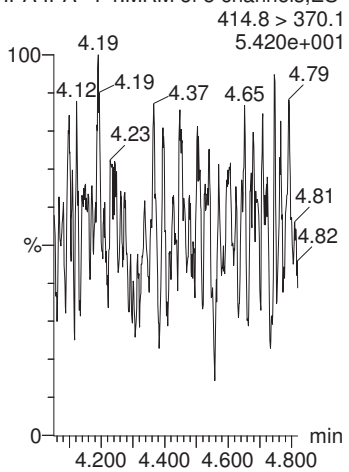

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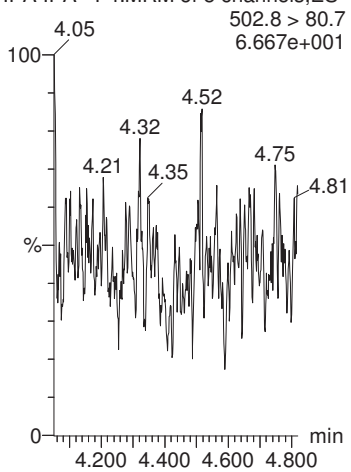

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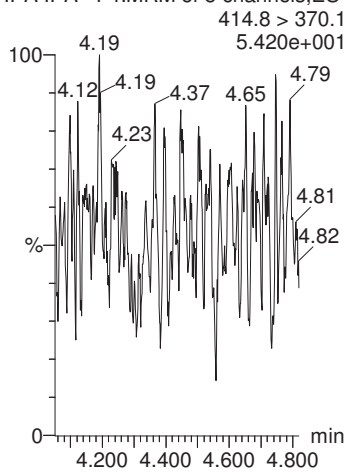

Vista Analytical Laboratory

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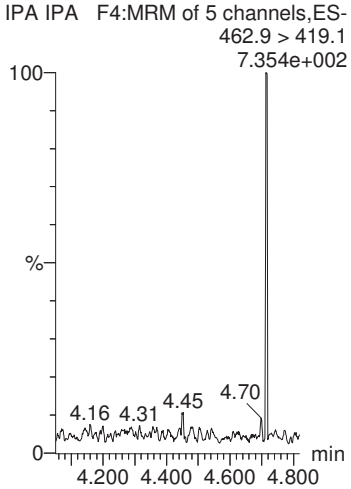
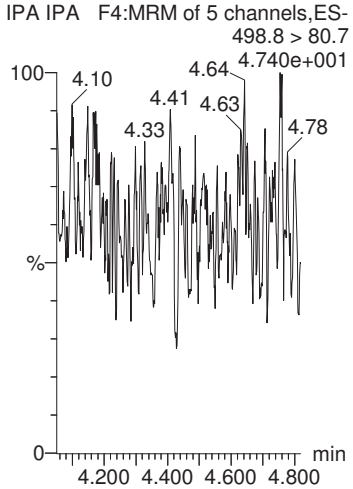
Printed: Friday, July 20, 2018 11:17:53 Pacific Daylight Time

Name: 180719G3_12, Date: 19-Jul-2018, Time: 17:11:52, ID: IPA, Description: IPA

PFNA



PFOS



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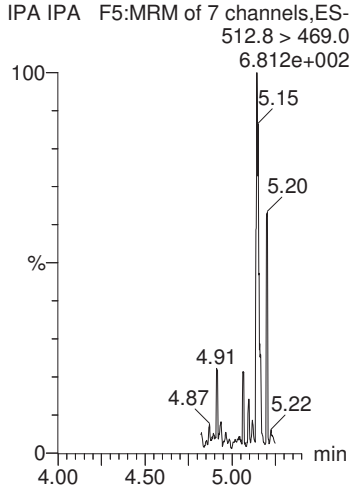
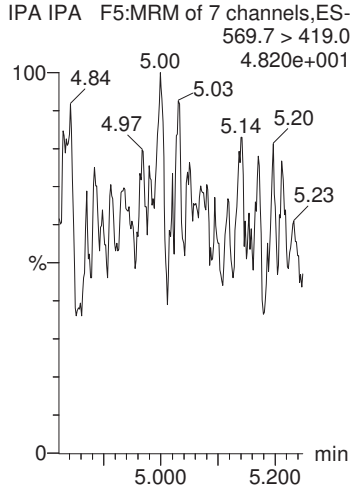


N-MeFOSAA



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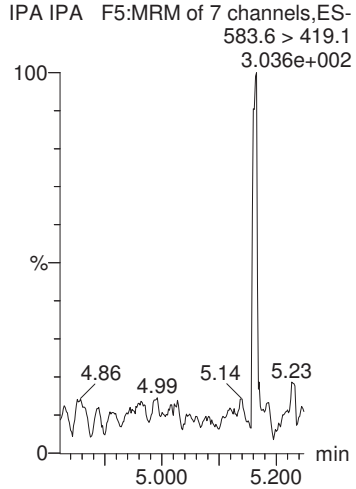

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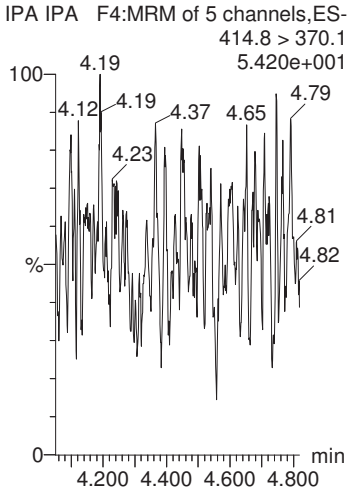

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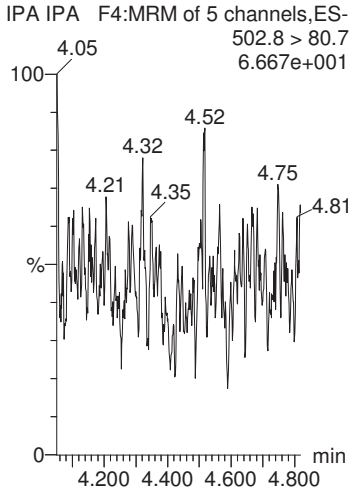

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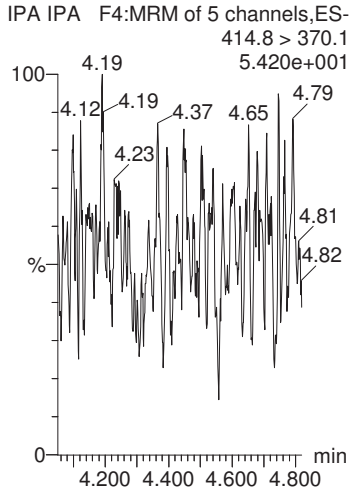
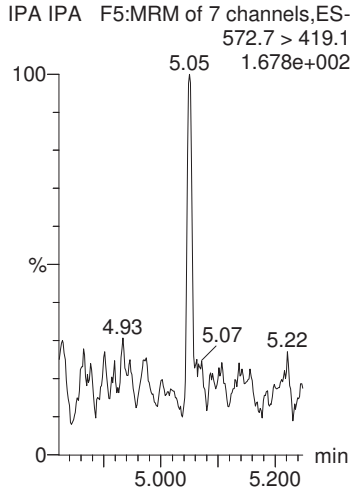


d3-N-MeFOSAA



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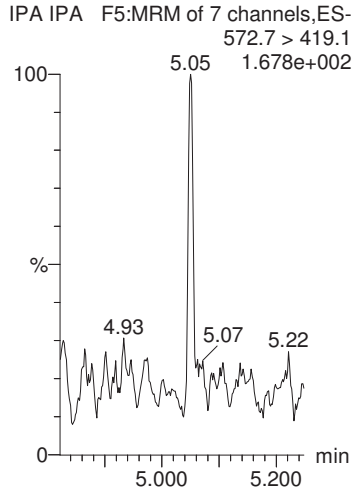

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Last Altered: Friday, July 20, 2018 11:17:27 Pacific Daylight Time
Printed: Friday, July 20, 2018 11:17:53 Pacific Daylight Time

Name: 180719G3_12, Date: 19-Jul-2018, Time: 17:11:52, ID: IPA, Description: IPA

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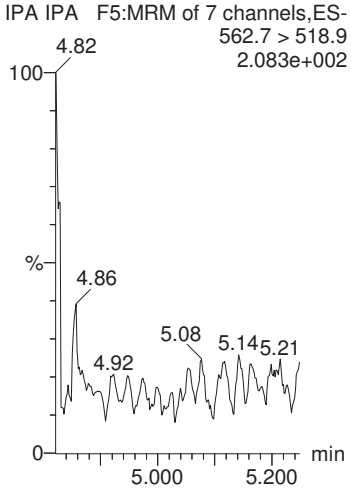

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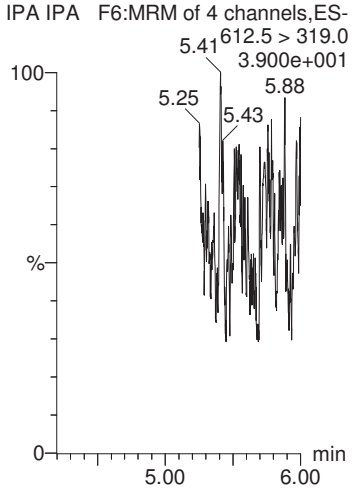

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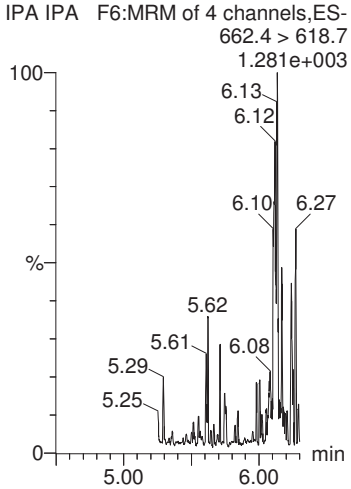

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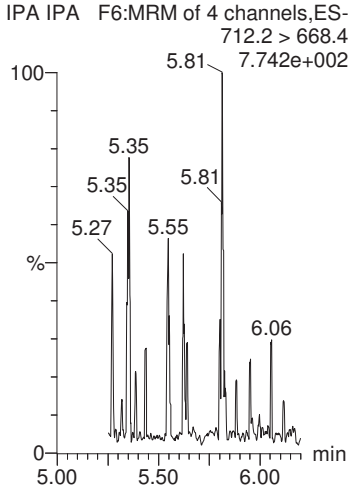

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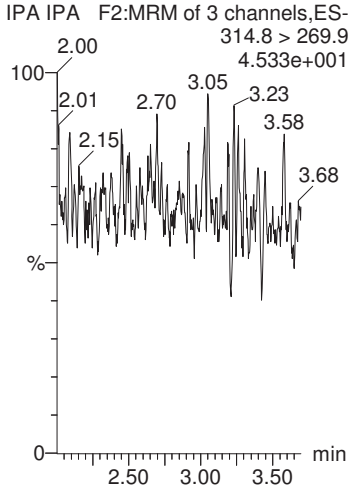

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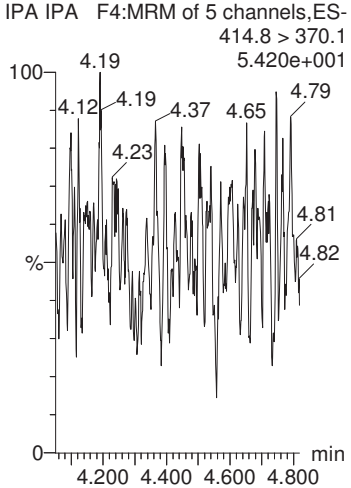

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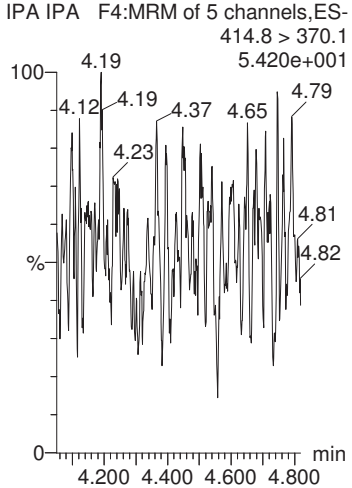

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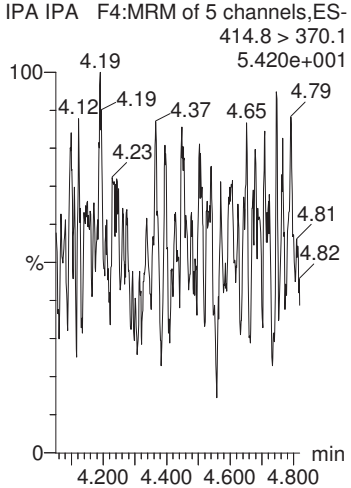

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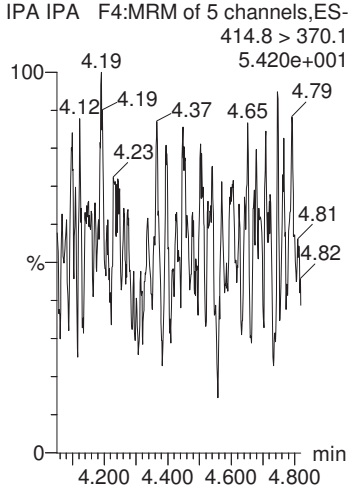

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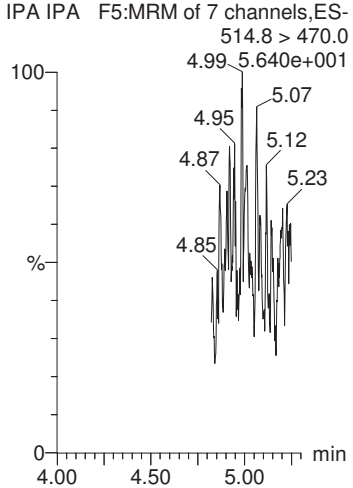

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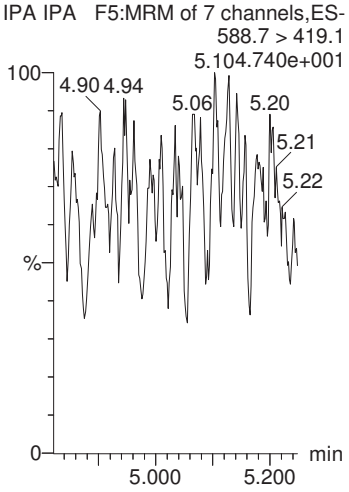

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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:20	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/17/2018 11:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_ Collected	Date_ Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:09	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:11	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:22	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
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N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 09:24	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_ Collected	Date_ Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:37	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:40	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:50	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 10:52	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_ Collected	Date_ Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:15	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	07/18/2018 14:17	07/19/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	07/20/2018 08:45	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_ Group	Analytical_ Method	PRC_Code	Lab_Code	Lab_Name	Leachate_ Method	Sample_ Basis	Extraction_ Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_ Collected	Date_ Received	Leachate_ Date	Leachate_ Time
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	07/18/2018 10:50	07/20/2018		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.27	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			13C2-PFHxA	13C2-PFHxA		98.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			13C2-PFDA	13C2-PFDA		99.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718	20180720	08:45:00	20180724	22:35:00	1801824-01	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			13C2-PFHxA	13C2-PFHxA		98.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			13C2-PFDA	13C2-PFDA		96.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718	20180720	08:45:00	20180724	22:48:00	1801824-02	1	-999			d5-EtFOSAA	d5-EtFOSAA		98.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			13C2-PFHxA	13C2-PFHxA		101	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			13C2-PFDA	13C2-PFDA		101	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718	20180720	08:45:00	20180724	23:01:00	1801824-03	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.2	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			13C2-PFHxA	13C2-PFHxA		96.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			13C2-PFDA	13C2-PFDA		100	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718	20180720	08:45:00	20180724	23:14:00	1801824-04	1	-999			d5-EtFOSAA	d5-EtFOSAA		93.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.90	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			13C2-PFHxA	13C2-PFHxA		106	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			13C2-PFDA	13C2-PFDA		96.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718	20180720	08:45:00	20180725	08:54:00	1801824-05	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			13C2-PFHxA	13C2-PFHxA		108	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			13C2-PFDA	13C2-PFDA		101	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718	20180720	08:45:00	20180725	09:06:00	1801824-06	1	-999			d5-EtFOSAA	d5-EtFOSAA		95.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			13C2-PFHxA	13C2-PFHxA		103	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			13C2-PFDA	13C2-PFDA		96.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718	20180720	08:45:00	20180725	09:19:00	1801824-07	1	-999			d5-EtFOSAA	d5-EtFOSAA		86.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			13C2-PFHxA	13C2-PFHxA		104	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			13C2-PFDA	13C2-PFDA		95.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718	20180720	08:45:00	20180725	09:31:00	1801824-08	1	-999			d5-EtFOSAA	d5-EtFOSAA		101	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.94	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			13C2-PFHxA	13C2-PFHxA		97.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			13C2-PFDA	13C2-PFDA		92.9	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718	20180720	08:45:00	20180725	09:44:00	1801824-09	1	-999			d5-EtFOSAA	d5-EtFOSAA		94.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			13C2-PFHxA	13C2-PFHxA		103	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			13C2-PFDA	13C2-PFDA		87.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718	20180720	08:45:00	20180725	09:57:00	1801824-10	1	-999			d5-EtFOSAA	d5-EtFOSAA		97.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		8.46	NG_L	J
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		7.28	NG_L	J
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		11.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.90	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			13C2-PFHxA	13C2-PFHxA		97.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			13C2-PFDA	13C2-PFDA		87.5	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718	20180720	08:45:00	20180725	10:10:00	1801824-11	1	-999			d5-EtFOSAA	d5-EtFOSAA		90.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			13C2-PFHxA	13C2-PFHxA		94.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			13C2-PFDA	13C2-PFDA		89.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718	20180720	08:45:00	20180725	10:23:00	1801824-12	1	-999			d5-EtFOSAA	d5-EtFOSAA		83.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.88	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.88	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			13C2-PFHxA	13C2-PFHxA		97.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			13C2-PFDA	13C2-PFDA		90.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718	20180720	08:45:00	20180725	10:36:00	1801824-13	1	-999			d5-EtFOSAA	d5-EtFOSAA		95.8	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.94	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			13C2-PFHxA	13C2-PFHxA		108	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			13C2-PFDA	13C2-PFDA		102	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718	20180720	08:45:00	20180725	10:48:00	1801824-14	1	-999			d5-EtFOSAA	d5-EtFOSAA		108	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.96	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			13C2-PFHxA	13C2-PFHxA		98.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			13C2-PFDA	13C2-PFDA		94.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718	20180720	08:45:00	20180725	11:01:00	1801824-15	1	-999			d5-EtFOSAA	d5-EtFOSAA		86.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.98	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			13C2-PFHxA	13C2-PFHxA		102	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			13C2-PFDA	13C2-PFDA		96.4	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718	20180720	08:45:00	20180725	11:14:00	1801824-16	1	-999			d5-EtFOSAA	d5-EtFOSAA		108	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.92	NG_L	U

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.92	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			13C2-PFHxA	13C2-PFHxA		103	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			13C2-PFDA	13C2-PFDA		93.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718	20180720	08:45:00	20180725	11:27:00	1801824-17	1	-999			d5-EtFOSAA	d5-EtFOSAA		91.0	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.84	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			13C2-PFHxA	13C2-PFHxA		99.6	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			13C2-PFDA	13C2-PFDA		91.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718	20180720	08:45:00	20180725	11:40:00	1801824-18	1	-999			d5-EtFOSAA	d5-EtFOSAA		98.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.00	NG_L	U
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			13C2-PFHxA	13C2-PFHxA		99.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			13C2-PFDA	13C2-PFDA		101	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank	20180720	08:45:00	20180724	21:44:00	B8G0155-BLK1	1	-999			d5-EtFOSAA	d5-EtFOSAA		92.3	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		16.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		18.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		19.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		14.5	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		19.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		18.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		14.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		18.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		16.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		15.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		18.6	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		19.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		18.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		19.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			13C2-PFHxA	13C2-PFHxA		103	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			13C2-PFDA	13C2-PFDA		102	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS	20180720	08:45:00	20180724	21:57:00	B8G0155-BS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		93.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		15.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		19.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		20.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		14.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		19.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		19.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		15.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		20.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		18.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		16.9	NG_L	

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	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	Result_ Units	Lab_ Qualifier
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		20.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		19.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		18.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		19.4	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			13C2-PFHxA	13C2-PFHxA		102	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			13C2-PFDA	13C2-PFDA		97.1	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS	20180720	08:45:00	20180724	22:10:00	B8G0155-MS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		86.7	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		17.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		21.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		21.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		16.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		19.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		20.0	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		19.1	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		21.3	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		17.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		18.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		21.2	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		20.8	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		18.9	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		19.7	NG_L	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			13C2-PFHxA	13C2-PFHxA		106	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			13C2-PFDA	13C2-PFDA		103	PCT_REC	
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD	20180720	08:45:00	20180724	22:22:00	B8G0155-MSD1	1	-999			d5-EtFOSAA	d5-EtFOSAA		91.1	PCT_REC	

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	TRG									5.1	3.21	5.27	10.5	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB23-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	TRG									5.1	3.03	4.98	9.97	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB24-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	TRG									5.1	2.98	4.90	9.80	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	TRG									5.1	2.99	4.92	9.83	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB25-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	TRG									5.1	3.00	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	TRG									5.1	2.98	4.90	9.79	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB26-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	TRG									5.1	3.01	4.94	9.90	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB27-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	TRG									5.1	2.98	4.90	9.81	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB28-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	TRG									5.1	2.97	4.88	9.76	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	TRG									5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB29-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	TRG									5.1	3.02	4.96	9.93	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	TRG									5.1	3.02	4.98	9.95	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB30-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	TRG									5.1	2.99	4.92	9.85	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	TRG									5.1	2.95	4.84	9.69	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1FB31-0718		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	TRG									5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	Blank		PR	SURR		SLSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	LCS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		

Contract_ID	DO_CTO_ Number	Phase	Installation_ID	Sample_Name	Validator_ Qualifier	GC_Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_Control_ Limit_Code	QC_Accuracy_ Upper	QC_Accuracy_ Lower	Control_Limit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch	Validator_ Name	Val_Date
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	TRG		LSA	130	70					5.1	3.01	4.94	9.89	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MS		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	TRG		LSA	130	70					5.1	3.05	5.02	10.0	1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		
N6247016D9000	0008		CHESAPEAKE_NSGA	CBD-1RW30-0718-MSD		PR	SURR		LSA	130	70					5.1				1801824	S8G0072		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NRL-CBD, MARYLAND

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1801824
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NRL-CBD, CTO-0008, Maryland
Date: August 13, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CBD-1RW23-0718	1801824-01	Water
2	CBD-1FB23-0718	1801824-02	Water
3	CBD-1RW24-0718	1801824-03	Water
4	CBD-1FB24-0718	1801824-04	Water
5	CBD-1RW25-0718	1801824-05	Water
6	CBD-1FB25-0718	1801824-06	Water
7	CBD-1RW26-0718	1801824-07	Water
8	CBD-1FB26-0718	1801824-08	Water
9	CBD-1RW27-0718	1801824-09	Water
10	CBD-1FB27-0718	1801824-10	Water
11	CBD-1RW28-0718	1801824-11	Water
12	CBD-1FB28-0718	1801824-12	Water
13	CBD-1RW29-0718	1801824-13	Water
14	CBD-1FB29-0718	1801824-14	Water
15	CBD-1RW30-0718	1801824-15	Water
15MS	CBD-1RW30-0718MS	1801824-15MS	Water
15MSD	CBD-1RW30-0718MSD	1801824-15MSD	Water
16	CBD-1FB30-0718	1801824-16	Water
17	CBD-1RW31-0718	1801824-17	Water
18	CBD-1FB31-0718	1801824-18	Water

A full data validation was performed on the analytical data for nine water samples and nine aqueous field blank samples collected on July 17-18, 2018 by CH2M HILL at the NRL-CBD site in Maryland. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis	*Method References*
PFCs	USEPA Method 537, Rev 1.1

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM),

Version 5.1 (2017) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review," January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes. There were no qualifications.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
CBD-1FB23-0718	None - ND	-	-	-
CBD-1FB24-0718	None - ND	-	-	-
CBD-1FB25-0718	None - ND	-	-	-
CBD-1FB26-0718	None - ND	-	-	-
CBD-1FB27-0718	None - ND	-	-	-
CBD-1FB28-0718	None - ND	-	-	-
CBD-1FB29-0718	None - ND	-	-	-
CBD-1FB30-0718	None - ND	-	-	-
CBD-1FB31-0718	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 8/13/18

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Vista Analytical Laboratory

Sample ID: CBD-1RW23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:04

Laboratory Data

Lab Sample: 1801824-01
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxA	307-24-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHpA	375-85-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFHxS	355-46-4	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOA	335-67-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFNA	375-95-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFOS	1763-23-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDA	335-76-2	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
MeFOSAA	2355-31-9	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
EtFOSAA	2991-50-6	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFUnA	2058-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFDoA	307-55-1	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTrDA	72629-94-8	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
PFTeDA	376-06-7	ND	3.21	5.27	10.5		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.2	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
13C2-PFDA	SURR	99.7	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1
d5-EtFOSAA	SURR	90.3	70 - 130		B8G0155	20-Jul-18	0.237 L	24-Jul-18 22:35	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers Only the linear isomer is reported for all other analytes

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB23-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:07

Laboratory Data

Lab Sample: 1801824-02
Date Received: 19-Jul-18 09:41
Column: BEH C18

2

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFHxA	307-24-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFHpA	375-85-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFHxS	355-46-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFOA	335-67-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFNA	375-95-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFOS	1763-23-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFDA	335-76-2	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
MeFOSAA	2355-31-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
EtFOSAA	2991-50-6	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFUnA	2058-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFDoA	307-55-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFTrDA	72629-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
PFTeDA	376-06-7	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.7	70 - 130		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
13C2-PFDA	SURR	96.7	70 - 130		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1
d5-EtFOSAA	SURR	98.1	70 - 130		B8G0155	20-Jul-18	0.258 L	24-Jul-18 22:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

MW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW24-0718 **EPA Method 537**

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:50

Laboratory Data

Lab Sample: 1801824-03
Date Received: 19-Jul-18 09:41
Column: BEH C18

3

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFHxA	307-24-4	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFHpA	375-85-9	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFHxS	355-46-4	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFOA	335-67-1	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFNA	375-95-1	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFOS	1763-23-1	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFDA	335-76-2	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
MeFOSAA	2355-31-9	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
EtFOSAA	2991-50-6	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFUnA	2058-94-8	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFDoA	307-55-1	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFTrDA	72629-94-8	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
PFTeDA	376-06-7	ND	3.03	4.98	9.97		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
13C2-PFDA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1
d5-EtFOSAA	SURR	90.2	70 - 130		B8G0155	20-Jul-18	0.251 L	24-Jul-18 23:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB24-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 09:52

Laboratory Data

Lab Sample: 1801824-04
Date Received: 19-Jul-18 09:41
Column: BEH C18

4

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFHxA	307-24-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFHpA	375-85-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFHxS	355-46-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFOA	335-67-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFNA	375-95-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFOS	1763-23-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFDA	335-76-2	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFUnA	2058-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFDoA	307-55-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFTrDA	72629-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
PFTeDA	376-06-7	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.1	70 - 130		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
13C2-PFDA	SURR	100	70 - 130		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1
d5-EtFOSAA	SURR	93.4	70 - 130		B8G0155	20-Jul-18	0.256 L	24-Jul-18 23:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

MW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW25-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 10:38

Laboratory Data

Lab Sample: 1801824-05
Date Received: 19-Jul-18 09:41
Column: BEH C18

5

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFHxA	307-24-4	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFHpA	375-85-9	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFHxS	355-46-4	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFOA	335-67-1	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFNA	375-95-1	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFOS	1763-23-1	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFDA	335-76-2	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
MeFOSAA	2355-31-9	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
EtFOSAA	2991-50-6	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFUnA	2058-94-8	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFDoA	307-55-1	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFTrDA	72629-94-8	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
PFTeDA	376-06-7	ND	2.98	4.90	9.80		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	106	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
13C2-PFDA	SURR	96.4	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1
d5-EtFOSAA	SURR	90.0	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 08:54	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB25-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 10:40

Laboratory Data

Lab Sample: 1801824-06
Date Received: 19-Jul-18 09:41
Column: BEH C18

6

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFHxA	307-24-4	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFHpA	375-85-9	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFHxS	355-46-4	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFOA	335-67-1	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFNA	375-95-1	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFOS	1763-23-1	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFDA	335-76-2	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
MeFOSAA	2355-31-9	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
EtFOSAA	2991-50-6	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFUnA	2058-94-8	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFDoA	307-55-1	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFTrDA	72629-94-8	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
PFTeDA	376-06-7	ND	2.99	4.92	9.83		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	108	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
13C2-PFDA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1
d5-EtFOSAA	SURR	95.4	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:06	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

8/31/8

Vista Analytical Laboratory

Sample ID: CBD-1RW26-0718

EPA Method 537

7

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 11:20

Laboratory Data

Lab Sample: 1801824-07
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFHxA	307-24-4	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFHpA	375-85-9	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFHxS	355-46-4	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFOA	335-67-1	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFNA	375-95-1	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFOS	1763-23-1	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFDA	335-76-2	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
MeFOSAA	2355-31-9	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
EtFOSAA	2991-50-6	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFUnA	2058-94-8	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFDoA	307-55-1	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFTrDA	72629-94-8	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
PFTeDA	376-06-7	ND	3.00	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
13C2-PFDA	SURR	96.0	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1
d5-EtFOSAA	SURR	86.1	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 09:19	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

MW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB26-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 17-Jul-18 11:22

Laboratory Data

Lab Sample: 1801824-08
Date Received: 19-Jul-18 09:41
Column: BEH C18

8

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFHxA	307-24-4	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFHpA	375-85-9	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFHxS	355-46-4	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFOA	335-67-1	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFNA	375-95-1	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFOS	1763-23-1	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFDA	335-76-2	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
MeFOSAA	2355-31-9	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
EtFOSAA	2991-50-6	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFUnA	2058-94-8	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFDoA	307-55-1	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFTrDA	72629-94-8	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
PFTeDA	376-06-7	ND	2.98	4.90	9.79		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
13C2-PFDA	SURR	95.1	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1
d5-EtFOSAA	SURR	101	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 09:31	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

NW 8/31/8

Vista Analytical Laboratory

Sample ID: CBD-1RW27-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 09:09

Laboratory Data

Lab Sample: 1801824-09
Date Received: 19-Jul-18 09:41
Column: BEH C18

9

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFHxA	307-24-4	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFHpA	375-85-9	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFHxS	355-46-4	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFOA	335-67-1	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFNA	375-95-1	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFOS	1763-23-1	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFDA	335-76-2	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
MeFOSAA	2355-31-9	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
EtFOSAA	2991-50-6	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFUnA	2058-94-8	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFDoA	307-55-1	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFTrDA	72629-94-8	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
PFTeDA	376-06-7	ND	3.01	4.94	9.90		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.9	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
13C2-PFDA	SURR	92.9	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1
d5-EtFOSAA	SURR	94.3	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 09:44	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

ne 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB27-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 09:11

Laboratory Data

Lab Sample: 1801824-10
Date Received: 19-Jul-18 09:41
Column: BEH C18

10

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFHxA	307-24-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFHpA	375-85-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFHxS	355-46-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFOA	335-67-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFNA	375-95-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFOS	1763-23-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFDA	335-76-2	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFUnA	2058-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFDoA	307-55-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFTrDA	72629-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
PFTeDA	376-06-7	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
13C2-PFDA	SURR	87.8	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1
d5-EtFOSAA	SURR	97.7	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 09:57	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers Only the linear isomer is reported for all other analytes

MW 8/31/18

Vista Analytical Laboratory

Sample ID: CBD-1RW28-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 09:22

Laboratory Data

Lab Sample: 1801824-11
Date Received: 19-Jul-18 09:41
Column: BEH C18

11

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	8.46	2.98	4.90	9.81	J	B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFHxA	307-24-4	7.28	2.98	4.90	9.81	J	B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFHpA	375-85-9	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFHxS	355-46-4	11.2	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFOA	335-67-1	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFNA	375-95-1	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFOS	1763-23-1	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFDA	335-76-2	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
MeFOSAA	2355-31-9	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
EtFOSAA	2991-50-6	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFUnA	2058-94-8	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFDoA	307-55-1	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFTrDA	72629-94-8	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
PFTeDA	376-06-7	ND	2.98	4.90	9.81		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.7	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
13C2-PFDA	SURR	87.5	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1
d5-EtFOSAA	SURR	90.8	70 - 130		B8G0155	20-Jul-18	0.255 L	25-Jul-18 10:10	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

Rev 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB28-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 09:24

Laboratory Data

Lab Sample: 1801824-12
Date Received: 19-Jul-18 09:41
Column: BEH C18

12

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFHxA	307-24-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFHpA	375-85-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFHxS	355-46-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFOA	335-67-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFNA	375-95-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFOS	1763-23-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFDA	335-76-2	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
MeFOSAA	2355-31-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
EtFOSAA	2991-50-6	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFUnA	2058-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFDoA	307-55-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFTrDA	72629-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
PFTeDA	376-06-7	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.4	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
13C2-PFDA	SURR	89.7	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1
d5-EtFOSAA	SURR	83.8	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 10:23	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers Only the linear isomer is reported for all other analytes

8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW29-0718

EPA Method 537

13

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 10:37

Laboratory Data

Lab Sample: 1801824-13
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFHxA	307-24-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFHpA	375-85-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFHxS	355-46-4	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFOA	335-67-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFNA	375-95-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFOS	1763-23-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFDA	335-76-2	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
MeFOSAA	2355-31-9	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
EtFOSAA	2991-50-6	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFUnA	2058-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFDoA	307-55-1	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFTrDA	72629-94-8	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
PFTeDA	376-06-7	ND	2.97	4.88	9.76		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.3	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
13C2-PFDA	SURR	90.4	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1
d5-EtFOSAA	SURR	95.8	70 - 130		B8G0155	20-Jul-18	0.256 L	25-Jul-18 10:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers Only the linear isomer is reported for all other analytes

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1FB29-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 10:40

Laboratory Data

Lab Sample: 1801824-14
Date Received: 19-Jul-18 09:41
Column: BEH C18

14

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFHxA	307-24-4	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFHpA	375-85-9	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFHxS	355-46-4	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFOA	335-67-1	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFNA	375-95-1	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFOS	1763-23-1	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFDA	335-76-2	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
MeFOSAA	2355-31-9	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
EtFOSAA	2991-50-6	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFUnA	2058-94-8	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFDoA	307-55-1	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFTrDA	72629-94-8	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
PFTeDA	376-06-7	ND	3.01	4.94	9.89		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	108	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
13C2-PFDA	SURR	102	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1
d5-EtFOSAA	SURR	108	70 - 130		B8G0155	20-Jul-18	0.253 L	25-Jul-18 10:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

NW 8/31/18

Vista Analytical Laboratory

Sample ID: CBD-1RW30-0718

EPA Method 537

15

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 10:50

Laboratory Data

Lab Sample: 1801824-15
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFHxA	307-24-4	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFHpA	375-85-9	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFHxS	355-46-4	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFOA	335-67-1	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFNA	375-95-1	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFOS	1763-23-1	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFDA	335-76-2	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
MeFOSAA	2355-31-9	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
EtFOSAA	2991-50-6	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFUnA	2058-94-8	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFDoA	307-55-1	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFTrDA	72629-94-8	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
PFTeDA	376-06-7	ND	3.02	4.96	9.93		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.3	70 - 130		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
13C2-PFDA	SURR	94.0	70 - 130		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1
d5-EtFOSAA	SURR	86.6	70 - 130		B8G0155	20-Jul-18	0.252 L	25-Jul-18 11:01	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

MW 8/31/18

Vista Analytical Laboratory

Sample ID: CBD-1FB30-0718

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 10:52

Laboratory Data

Lab Sample: 1801824-16
Date Received: 19-Jul-18 09:41
Column: BEH C18

16

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFHxA	307-24-4	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFHpA	375-85-9	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFHxS	355-46-4	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFOA	335-67-1	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFNA	375-95-1	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFOS	1763-23-1	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFDA	335-76-2	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
MeFOSAA	2355-31-9	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
EtFOSAA	2991-50-6	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFUnA	2058-94-8	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFDoA	307-55-1	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFTrDA	72629-94-8	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
PFTeDA	376-06-7	ND	3.02	4.98	9.95		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
13C2-PFDA	SURR	96.4	70 - 130		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1
d5-EtFOSAA	SURR	108	70 - 130		B8G0155	20-Jul-18	0.251 L	25-Jul-18 11:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

NW 8/13/18

Vista Analytical Laboratory

Sample ID: CBD-1RW31-0718

EPA Method 537

17

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 14:15

Laboratory Data

Lab Sample: 1801824-17
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFHxA	307-24-4	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFHpA	375-85-9	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFHxS	355-46-4	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFOA	335-67-1	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFNA	375-95-1	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFOS	1763-23-1	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFDA	335-76-2	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
MeFOSAA	2355-31-9	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
EtFOSAA	2991-50-6	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFUnA	2058-94-8	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFDoA	307-55-1	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFTrDA	72629-94-8	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
PFTeDA	376-06-7	ND	2.99	4.92	9.85		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
13C2-PFDA	SURR	93.3	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1
d5-EtFOSAA	SURR	91.0	70 - 130		B8G0155	20-Jul-18	0.254 L	25-Jul-18 11:27	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes

MW 8/31/18

Vista Analytical Laboratory

Sample ID: CBD-1FB31-0718

EPA Method 537

18

Client Data

Name: CH2M Hill
Project: CTO-08 PFAS DW Investigation NRL CBD
Matrix: Drinking Water
Date Collected: 18-Jul-18 14:17

Laboratory Data

Lab Sample: 1801824-18
Date Received: 19-Jul-18 09:41
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFHxA	307-24-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFHpA	375-85-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFHxS	355-46-4	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFOA	335-67-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFNA	375-95-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFOS	1763-23-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFDA	335-76-2	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
MeFOSAA	2355-31-9	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
EtFOSAA	2991-50-6	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFUnA	2058-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFDoA	307-55-1	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFTrDA	72629-94-8	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
PFTeDA	376-06-7	ND	2.95	4.84	9.69		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	99.6	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
13C2-PFDA	SURR	91.7	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1
d5-EtFOSAA	SURR	98.1	70 - 130		B8G0155	20-Jul-18	0.258 L	25-Jul-18 11:40	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

MW 8/13/18

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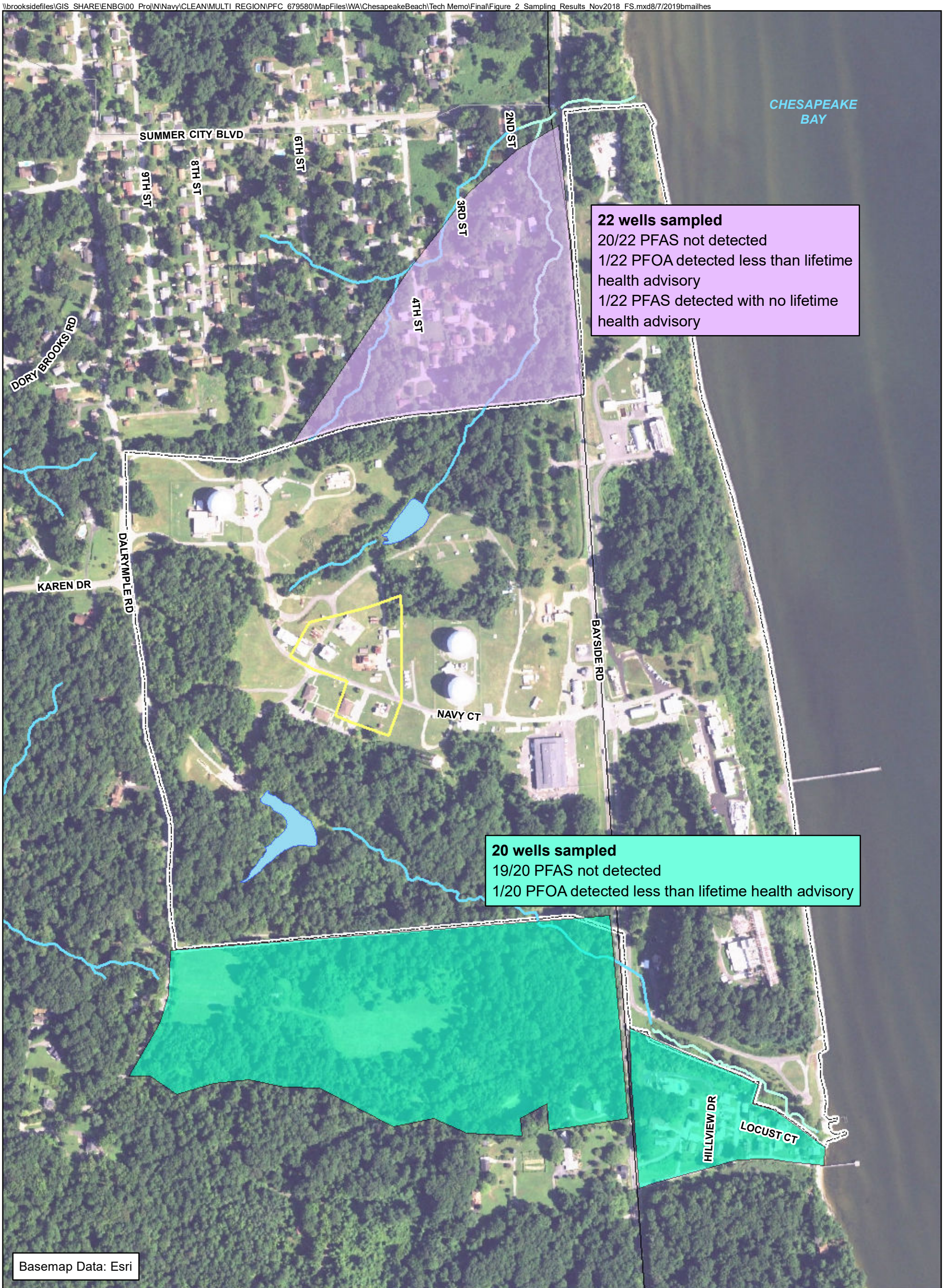

Legend

- Sampling Area
- Sampling Area
- Fire Testing Area (suspected source)
- Base Boundary
- Surface Water
- Assumed Stream Channel
- Stream

N

0 200 400 Feet

1 inch equals 400 feet

Figure 2
Off-Base Drinking Water Sampling Results through November 2018
NRL-Chesapeake Bay Detachment
Chesapeake Beach, Maryland