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 1701928

Marine Corps Outlying Landing Field Atlantic
MCAS Cherry Point NC

February 2019

December 20, 2017

Vista Work Order No. 1701928

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 December 12, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-08/MCOLF ATLANTIC PFAS INV.'.

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. 1701928
Case Narrative

Sample Condition on Receipt:

Ten 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

Samples "CH-AT-1RW156-1217" and "CH-AT-1RW157-1217" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for PFBS, PFOA and PFOS using EPA Method 537.

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.

Two Laboratory Fortified Blanks (LFB) and a 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.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701928-01	CH-AT-1RW153-1217	08-Dec-17 16:29	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-02	CH-AT-1FB153-1217	08-Dec-17 16:30	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-03	CH-AT-1RW154-1217	08-Dec-17 16:55	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-04	CH-AT-1FB154-1217	08-Dec-17 16:56	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-05	CH-AT-1RW155-1217	09-Dec-17 09:45	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-06	CH-AT-1FB155-1217	09-Dec-17 09:45	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-07	CH-AT-1RW156-1217	09-Dec-17 10:08	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-08	CH-AT-1FB156-1217	09-Dec-17 10:08	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-09	CH-AT-1RW157-1217	09-Dec-17 09:14	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-10	CH-AT-1FB157-1217	09-Dec-17 09:14	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water

Laboratory Data

Lab Sample: B7L0122-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1
PFOA	ND	1.08	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1
PFOS	ND	1.04	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFBD **EPA Method 537**

Name:	CH2M Hill	Lab Sample:	B7L0122-BS1/B7L0122-BSD1
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	QC Batch:	B7L0122
Matrix:	Drinking Water	Samp Size:	0.250/0.250 L
		Date Extracted:	18-Dec-17
		Column:	BEH C18

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	34.4	35.4	97.2		34.1	35.4	96.3	1.01		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1
PFOA	43.1	40.0	108		42.4	40.0	106	1.65		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1
PFOS	36.8	37.0	99.3		32.6	37.0	88.0	12.1		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFHxA	SURR	110		93.2		70-130	19-Dec-17 10:33	1	19-Dec-17 10:45	1

Sample ID: CH-AT-1RW153-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 08-Dec-17 16:29

Laboratory Data

Lab Sample: 1701928-01
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.441	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOA	ND	1.08	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOS	ND	1.04	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.6	70 - 130		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB153-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 08-Dec-17 16:R0

Laboratory Data

Lab Sample: 1701928-02
Date v ecei4ed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.519	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1
PFOA	ND	1.02	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1
PFOS	ND	0.98R	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1RC2-PFHxA	S3 v v	105	70 - 1R0		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-3 CL- Lower control limit - upper control limit
v esults reported to the DL.

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

Sample ID: CH-AT-1RW154-1217

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: DriBgiBW6 ater
Date Collected: 08-Dec-17 1R:vv

Laboratory Data

Lab Sample: 1701928-0H
Date 4 ecei5ed: 12-Dec-17 10:07
ColnmB: Eku C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.U1U	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1
PFOA	ND	1.01	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1
PFOS	ND	0.971	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	S3 4 4	98.R	70 - 1H0		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1

DL - DetectioB Limit
LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB
LCL-3 CL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.
6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers.
OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1FB154-1217

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: DriBgiBW6 ater
Date Collected: 08-Dec-17 1R:vR

Laboratory Data

Lab Sample: 1701928-0H
Date 4 ecei5ed: 12-Dec-17 10:07
ColnmB: Eku C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.H20	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1
PFOA	ND	1.02	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1
PFOS	ND	0.98R	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SU4 4	10v	70 - 130		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1

DL - DetectioB Limit
LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB
LCL-UCL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.
6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers. OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1RW155-1312 **y EA P etMbh 5d2**

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.

Matrix: Drinking Water
Date Collected: 09-Dec-17 09:45

7 aLboatbor Data

Lab Sample: 1701928-05
Date Received: 12-Dec-17 10:07

Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	0.561	0.447	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOA	2.35	1.09	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOS	ND	1.05	5.05	10.1		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
13C2-PFHxA	SURR	98.6	70 - 130		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB155-1312 **y EA P etMbh 5d2**

Client Data

Name: Cu 2M u ill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: DriBgiBW6 ater
Date Collected: 09-Dec-17 09:Rv

7 aLboatbor Data

Lab Sample: 1701928-0H
Date 4 ecei5ed: 12-Dec-17 10:07
ColnmB: Eku C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFES	ND	0.R19	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1
PFOA	ND	1.02	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1
PFOS	ND	0.98R	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
1UC2-PFu xA	S3 4 4	11U	70 - 1U0		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1

DL - DetectioB Limit
LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB
LCL-3 CL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.
6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers. OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1RW156-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 10:08

Laboratory Data

Lab Sample: 1701928-07
Date 6 eceiRed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.v07	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1
PFOA	ND	0.991	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1
PFOS	ND	0.944	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFHxA	S3 6 6	10v	70 - 150		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-3 CL- Lower control limit - upper control limit
6 esults reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB156-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 10:08

Laboratory Data

Lab Sample: 1701928-08
Date 6 eceiRed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.v24	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1
PFOA	ND	1.0v	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1
PFOS	ND	1.00	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1UC2-PFHxA	S5 6 6	103	70 - 1U0		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-5 CL- Lower control limit - upper control limit
6 esults reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1RW153-1213 **y EA P etMbh 5d3**

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 09:14

7 aLboatbor Data

Lab Sample: 1701928-09
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	ND	0.413	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOA	ND	1.01	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOS	ND	0.970	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
13C2-PFHxA	SURR	88.6	70 - 130		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB153-1213 **y EA P etMbh 5d3**

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.

Matrix: Drinking Water
Date Collected: 09-Dec-17 09:16

7 aLboatbor Data

Lab Sample: 1701928-10
Date Received: 12-Dec-17 10:07

Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	ND	0.618	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1
PFOA	ND	1.02	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1
PFOS	ND	0.981	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
14C2-PFHxA	S3 RR	97.7	70 - 140		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-3 CL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The associated compound concentration exceeded the calibration range of the instrument.**
H	**Recovery and/or RPD was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Reporting Limit/LOQ.**
M	**Estimated Maximum Possible Concentration. (CA Region 2 projects only)**
*****	**See Cover Letter**
Conc.	**Concentration**
NA	**Not applicable**
ND	**Not Detected**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
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	1175673
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

NELAP Accredited Test Methods

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

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

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

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

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

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

Submit by Email*

Vista 12/11/17 COOLER #1 Pg 1 of 1

FOR LABORATORY USE ONLY
Laboratory Project ID: 1701928 Temp 0.4 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

CHAIN OF CUSTODY RECORD

TAT: (Check One)
Standard ◯ 21 days
Rush (surcharge may apply)
◯ 14 days ◉ 7 days Specify:

Project I.D.: CTO-08/MCOLF ATLANTIC PFAS INV. P.O. #: 100006-7-106051 Sampler: J. Towns/M. Clay / M. BRUNO (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
TIFFANY HILL	CH2M HILL	1100 NE CIRCLE BLVD	CORVALLIS	OR	97330	541-768-3109	

Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
~~MORGAN BRUNO~~ MARTA CLAY Marta Clay	12/11/17	1300	Melissa Sparks *	12/20/17	1456
Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

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

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

Method of Shipment: FEDEX

Tracking No.:

ATTN: Martha Maier

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1668 PAH	EPA1668 WHO-29	EPA1614	CARB429	EPA 537 PFOA, PFOS, PFBS DW ONLY
CH-AT-1RW153-1217	12/08/17	1629		2	P	DW																x		
CH-AT-1FB153-1217	12/0817	1630		2	P	DW																x		
CH-AT-1RW154-1217	12/08/17	1655		2	P	DW																x		
CH-AT-1FB154-1217	12/08/17	1656		2	P	DW																x		
CH-AT-1RW155-1217	12/09/17	0945		2	P	DW																x		
CH-AT-1FB155-1217	12/09/17	0945		2	P	DW																x		
CH-AT-1RW156-1217	12/09/17	1008		2	P	DW																x		
CH-AT-1FB156-1217	12/09/17	1008		2	P	DW																x		
CH-AT-1RW157-1217	12/09/17	0914		2	P	DW																x		
CH-AT-1FB157-1217	12/09/17	0914		2	P	DW																x		

Special Instructions/Comments: 7 DAY TAT
PFOA/PFOS/PFBS DRINKING WATER ANALYSIS

SEND DOCUMENTATION AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
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: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

*Bottle Preservative Type: ☐ T = Thiosulfate, ☒ O = Other TRIZMA

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

* received on 12/12/17; COC signed 12/20/17 1456

1007

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701928 **TAT** 7

Samples Arrival:	**Date/Time** 12/12/17 1007	**Initials:** WWS.	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/12/17 1035	**Initials:** BLB	**Location:** WR-2 **Shelf/Rack:** E2

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.5 (uncorrected)	**Time:** 1018				**Thermometer ID:** IR-1	
Temp °C: 0.6 (corrected)	**Probe used:** Yes☐ No☒					

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7888 6129 5956	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	✓

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

Comments:

December 20, 2017

Vista Work Order No. 1701928

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 December 12, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-08/MCOLF ATLANTIC PFAS INV.'.

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. 1701928
Case Narrative

Sample Condition on Receipt:

Ten 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

Samples "CH-AT-1RW156-1217" and "CH-AT-1RW157-1217" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for PFBS, PFOA and PFOS using EPA Method 537.

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.

Two Laboratory Fortified Blanks (LFB) and a 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.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701928-01	CH-AT-1RW153-1217	08-Dec-17 16:29	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-02	CH-AT-1FB153-1217	08-Dec-17 16:30	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-03	CH-AT-1RW154-1217	08-Dec-17 16:55	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-04	CH-AT-1FB154-1217	08-Dec-17 16:56	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-05	CH-AT-1RW155-1217	09-Dec-17 09:45	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-06	CH-AT-1FB155-1217	09-Dec-17 09:45	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-07	CH-AT-1RW156-1217	09-Dec-17 10:08	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-08	CH-AT-1FB156-1217	09-Dec-17 10:08	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-09	CH-AT-1RW157-1217	09-Dec-17 09:14	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701928-10	CH-AT-1FB157-1217	09-Dec-17 09:14	12-Dec-17 10:07	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water

Laboratory Data

Lab Sample: B7L0122-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1
PFOA	ND	1.08	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1
PFOS	ND	1.04	5.00	10.0		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B7L0122	18-Dec-17	0.250 L	19-Dec-17 11:23	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFBD

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B7L0122-BS1/B7L0122-BSD1		
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	QC Batch:	B7L0122	Date Extracted:	18-Dec-17
Matrix:	Drinking Water	Samp Size:	0.250/0.250 L	Column:	BEH C18

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	34.4	35.4	97.2		34.1	35.4	96.3	1.01		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1
PFOA	43.1	40.0	108		42.4	40.0	106	1.65		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1
PFOS	36.8	37.0	99.3		32.6	37.0	88.0	12.1		50-150		19-Dec-17 10:33	1	19-Dec-17 10:45	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C2-PFHxA	SURR	110		93.2		70-130	19-Dec-17 10:33	1	19-Dec-17 10:45	1

Sample ID: CH-AT-1RW153-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 08-Dec-17 16:29

Laboratory Data

Lab Sample: 1701928-01
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.441	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOA	ND	1.08	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOS	ND	1.04	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.6	70 - 130		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB153-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 08-Dec-17 16:R0

Laboratory Data

Lab Sample: 1701928-02
Date v ecei4ed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.519	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1
PFOA	ND	1.02	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1
PFOS	ND	0.98R	5.72	9.5U		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1RC2-PFHxA	S3 v v	105	70 - 1R0		B7L0122	18-Dec-17	0.26UL	19-Dec-17 16:RR	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-3 CL- Lower control limit - upper control limit
v esults reported to the DL.

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

Sample ID: CH-AT-1RW154-1217

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: DriBgiBW6 ater
Date Collected: 08-Dec-17 1R:vv

Laboratory Data

Lab Sample: 1701928-0H
Date 4 ecei5ed: 12-Dec-17 10:07
ColnmB: Eku C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.U1U	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1
PFOA	ND	1.01	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1
PFOS	ND	0.971	U.R7	9.HU		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HC2-PFu xA	S3 4 4	98.R	70 - 1H0		E7L0122	18-Dec-17	0.2R8 L	19-Dec-17 1R:U.R	1

DL - DetectioB Limit
LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB
LCL-3 CL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.
6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers.
OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1FB154-1217

EPA Method 537

Client Data

Name: Cu 2M u ill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: DriBgiBW6 ater
Date Collected: 08-Dec-17 1R:vR

Laboratory Data

Lab Sample: 1701928-0H
Date 4 ecei5ed: 12-Dec-17 10:07
ColnmB: Eku C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.H20	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1
PFOA	ND	1.02	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1
PFOS	ND	0.98R	H7H	9.H8		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFu xA	SU4 4	10v	70 - 130		E7L0122	18-Dec-17	0.2RHL	19-Dec-17 1R:v8	1

DL - DetectioB Limit
LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB
LCL-UCL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.
6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers.
OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1RW155-1312 **y EA P etMbh 5d2**

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.

Matrix: Drinking Water
Date Collected: 09-Dec-17 09:45

7 aLboatbor Data

Lab Sample: 1701928-05
Date Received: 12-Dec-17 10:07

Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	0.561	0.447	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOA	2.35	1.09	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOS	ND	1.05	5.05	10.1		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
13C2-PFHxA	SURR	98.6	70 - 130		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB155-1312 **y EA P etMbh 5d2**

Client Data				7 aLboatbor Data			
Name:	Cu 2M u ill	Matrix:	DriBgiBW6 ater	Lab Sample:	1701928-0H	ColnmB:	Eku C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 09:Rv	Date 4 ecei5ed:	12-Dec-17 10:07		

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFES	ND	0.R19	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1
PFOA	ND	1.02	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1
PFOS	ND	0.98R	R 7U	9.RH		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
1UC2-PFu xA	S3 4 4	11U	70 - 1U0		E7L0122	18-Dec-17	0.2HR L	19-Dec-17 17:2U	1

DL - DetectioB Limit

LOD - Limit of DetectioB
LOQ - Limit of qnaBtitatioB

LCL-3 CL- Lower coBtrol limit - npper coBtrol limit
4 esnlts reported to the DL.

6 heB reported, PFu xS, PFOA aBd PFOS iBclnde both liBear aBd braBched isomers.
OBly the liBear isomer is reported for all other aBalytes.

Sample ID: CH-AT-1RW156-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 10:08

Laboratory Data

Lab Sample: 1701928-07
Date 6 eceiRed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.v07	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1
PFOA	ND	0.991	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1
PFOS	ND	0.944	v.49	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
15C2-PFHxA	S3 6 6	10v	70 - 150		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:5U	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-3 CL- Lower control limit - upper control limit
6 esults reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB156-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 10:08

Laboratory Data

Lab Sample: 1701928-08
Date 6 eceiRed: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.v24	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1
PFOA	ND	1.0v	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1
PFOS	ND	1.00	v.81	9.42		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1UC2-PFHxA	S5 6 6	103	70 - 1U0		B7L0122	18-Dec-17	0.240 L	19-Dec-17 17:v8	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-5 CL- Lower control limit - upper control limit
6 esults reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1RW153-1213

y EA P etMbh 5d3

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 09:14

7 aLboatbor Data

Lab Sample: 1701928-09
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	ND	0.413	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOA	ND	1.01	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOS	ND	0.970	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
13C2-PFHxA	SURR	88.6	70 - 130		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1FB153-1213 **y EA P etMbh 5d3**

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.

Matrix: Drinking Water
Date Collected: 09-Dec-17 09:16

7 aLboatbor Data

Lab Sample: 1701928-10
Date Received: 12-Dec-17 10:07

Column: BEH C18

Analrte	Cbnc. (ng/7)	D7	7 OD	7 OQ	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
PFBS	ND	0.618	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1
PFOA	ND	1.02	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1
PFOS	ND	0.981	6.72	9.64		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1

7 aLeleh Stanhaohs	Trpe	% Recbveor	7 imits	Qualifieos	BatcM	y xtoacteh	Samp Size	Analrzeh	Dilutibn
14C2-PFHxA	S3 RR	97.7	70 - 140		B7L0122	18-Dec-17	0.25UL	19-Dec-17 18:14	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-3 CL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The associated compound concentration exceeded the calibration range of the instrument.**
H	**Recovery and/or RPD was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Reporting Limit/LOQ.**
M	**Estimated Maximum Possible Concentration. (CA Region 2 projects only)**
*****	**See Cover Letter**
Conc.	**Concentration**
NA	**Not applicable**
ND	**Not Detected**
TEQ	**Toxic Equivalency**
U	**Not Detected (specific projects only)**

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
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	1175673
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

NELAP Accredited Test Methods

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

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

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

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

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

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

Submit by Email*

Vista 12/11/17 COOLER #1 Pg 1 of 1

FOR LABORATORY USE ONLY
Laboratory Project ID: 1701928 Temp 0.4 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

CHAIN OF CUSTODY RECORD

TAT: (Check One)
Standard ◯ 21 days
Rush (surcharge may apply)
◯ 14 days ◉ 7 days Specify:

Project I.D.: CTO-08/MCOLF ATLANTIC PFAS INV. P.O. #: 100006-7-106051 Sampler: J. Towns/M. Clay / M. BRUNO (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
TIFFANY HILL	CH2M HILL	1100 NE CIRCLE BLVD	CORVALLIS	OR	97330	541-768-3109	

Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
~~MORGAN BRUNO~~ MARTA CLAY Marta Clay	12/11/17	1300	Marissa Sparks *	12/20/17	1456
Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

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

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

Method of Shipment: FEDEX

Tracking No.:

ATTN: Martha Maier

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA1613 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1668 PBDE	EPA1614 PAH	CARB429 WHO-29	EPA 537 PFOA, PFOS, PFBS DW ONLY
CH-AT-1RW153-1217	12/08/17	1629		2	P	DW																X	
CH-AT-1FB153-1217	12/0817	1630		2	P	DW																X	
CH-AT-1RW154-1217	12/08/17	1655		2	P	DW																X	
CH-AT-1FB154-1217	12/08/17	1656		2	P	DW																X	
CH-AT-1RW155-1217	12/09/17	0945		2	P	DW																X	
CH-AT-1FB155-1217	12/09/17	0945		2	P	DW																X	
CH-AT-1RW156-1217	12/09/17	1008		2	P	DW																X	
CH-AT-1FB156-1217	12/09/17	1008		2	P	DW																X	
CH-AT-1RW157-1217	12/09/17	0914		2	P	DW																X	
CH-AT-1FB157-1217	12/09/17	0914		2	P	DW																X	

Special Instructions/Comments: 7 DAY TAT
PFOA/PFOS/PFBS DRINKING WATER ANALYSIS

SEND DOCUMENTATION AND RESULTS TO:

Name: TIFFANY HILL
Company: CH2M
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: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

*Bottle Preservative Type: ☐ T = Thiosulfate, ☒ O = Other TRIZMA

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

* received on 12/12/17; COC signed 12/20/17 1456

1007

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701928 **TAT** 7

Samples Arrival:	**Date/Time** 12/12/17 1007	**Initials:** WWS.	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/12/17 1035	**Initials:** BLB	**Location:** WR-2 **Shelf/Rack:** E2

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None
Temp °C: 0.5 (uncorrected)	**Time:** 1018				**Thermometer ID:** IR-1	
Temp °C: 0.6 (corrected)	**Probe used:** Yes☐ No☒					

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7888 6129 5956	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	✓

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

Comments:

EXTRACTION INFORMATION

Process Sheet

Workorder: 1701928

RUSH

Prep Expiration: 2017-Dec-22
Client: CH2M Hill

Workorder Due: 19-Dec-17 00:00

TAT: 7

Method: **537 PFAS DW DoD Unmodified**
Matrix: **Drinking Water**

Prep Batch: B7L0122

Prep Data Entered: GPB 12/19/17
Date and Initials

Version: PFOA, PFOS, & PFBS
DoD: DoD QSM 5.1

Initial Sequence: _____

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701928-01	A	☑	☑	CH-AT-1RW153-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-02		☑	☑	CH-AT-1FB153-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-03		☑	☑	CH-AT-1RW154-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-04		☑	☑	CH-AT-1FB154-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-05		☑	☑	CH-AT-1RW155-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-06		☑	☑	CH-AT-1FB155-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-07		☑	☑	CH-AT-1RW156-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-08		☑	☑	CH-AT-1FB156-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-09		☑	☑	CH-AT-1RW157-1217		WR-2 E-2	HDPE Bottle, 250 mL
1701928-10		☐	☑	CH-AT-1FB157-1217		WR-2 E-2	HDPE Bottle, 250 mL

Pre-Prep Check Out: HC 12.18.17
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: HC 12.18.17
Spike Reconciled Initals/Date: HN 12/18/17
VialBoxID: Hoodcats

PREPARATION BENCH SHEET

Matrix: Drinking Water

Method: 537 PFAS DW DoD Unmodified

B7L0122

Chemist: ftc

Prep Date/Time: 18-Dec-17 08:15

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HLMS-89 ftc 12-18-17

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B7L0122-BLK1 (A)	NA	NA	(0.250) ✓	ftc HN 12-18-17	ftc 12-18-17	ftc QA 12-18-17
☐	B7L0122-BS1			(0.250) ✓			
☐	B7L0122-BSD1			(0.250) ✓			
☐	1701928-01	278.94	27.86	0.25108 ✓			
☐	1701928-02	292.12	27.53	0.26459 ✓			
☐	1701928-03	295.24	27.44	0.26780 ✓			
☐	1701928-04	291.44	27.64	0.26380 ✓			
☐	1701928-05	274.81	27.08	0.24773 ✓			
☐	1701928-06	291.91	27.60	0.26431			
☑	1701928-07	300.27	27.91	0.27236 ✓			
☐	1701928-08	287.58	27.59	0.25999 ✓			
☑	1701928-09	294.94	27.01	0.26793 ✓			
☐	1701928-10	292.64	27.66	0.26498 ✓			

SS/IS: 17L1416, 20µL (VS)

NS: 17I2601, 10µL

IS/RS: 17L1417, 20µL (VS)

SPE Chem: Strata X - 33um Bl. R.P. 500mg/6mL
Lot#: S17-003138

Ele SOLV: MeOH
Lot#: JB054409

Final Volume(s) 1mL

Notes: (A) 1.25 triplicate added to samples ftc 12-18-17

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0122

Matrix: Drinking Water

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701928-01	0.25108	NA	NA	1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-02	0.26459			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-03	0.2678			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-04	0.2638			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-05	0.24773			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-06	0.26431			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-07	0.27236			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-08	0.25999			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-09	0.26793			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
1701928-10	0.26498			1000	18-Dec-17 08:15	HAC			Drinking Water	537 PFAS DW DoD Unmo
B7L0122-BLK1	0.25			1000	18-Dec-17 08:15	HAC				QC
B7L0122-BS1	0.25			1000	18-Dec-17 08:15	HAC	17I2601	10		QC
B7L0122-BSD1	0.25			1000	18-Dec-17 08:15	HAC	17I2601	10		QC

GRB 12/19/17

SAMPLE DATA –EPA METHOD 537

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-12.qld

Last Altered: Wednesday, December 20, 2017 10:28:10 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:29:00 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-12, Date: 19-Dec-2017, Time: 11:23:02, ID: B7L0122-BLK1 LRB 0.25, Description: LRB

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.11e4		0.2500	3.24				
2	5	PFOA	413 > 368.7	2.97e1	9.28e3		0.2500	4.52	4.52	0.0320	0.160	
3	7	PFOS	499 >79.9		1.11e4		0.2500	4.91				
4	15	13C2-PFHxA	315 > 269.8	4.08e3	9.28e3	0.431	0.2500	3.63	3.60	4.39	40.8	101.9
5	16	13C2-PFDA	515.1 > 469.9	5.09e3	9.28e3	0.602	0.2500	5.15	5.15	5.49	36.4	91.1
6	18	13C2-PFOA	414.9 > 369.7	9.28e3	9.28e3	1.000	0.2500	4.41	4.52	10.0	40.0	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.11e4	1.11e4	1.000	0.2500	4.81	4.91	28.7	115	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

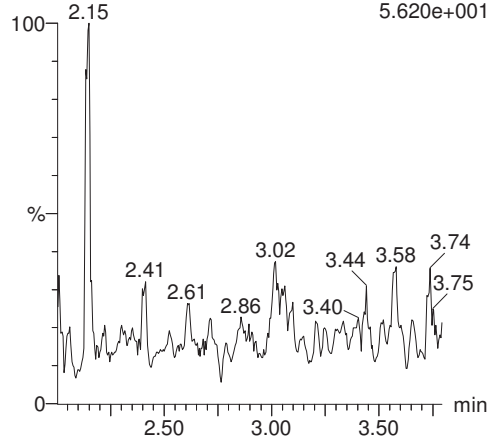
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-12.qld

Last Altered: Wednesday, December 20, 2017 10:28:10 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:29:00 Pacific Standard Time

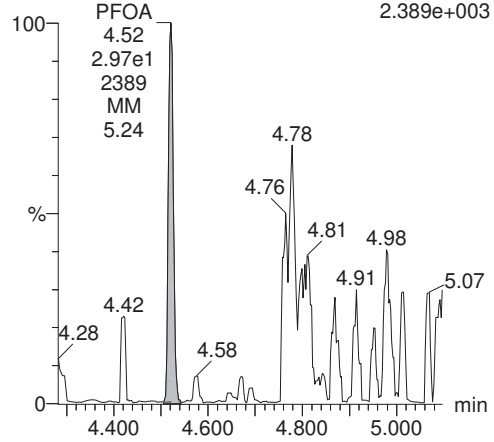
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-12, Date: 19-Dec-2017, Time: 11:23:02, ID: B7L0122-BLK1 LRB 0.25, Description: LRB

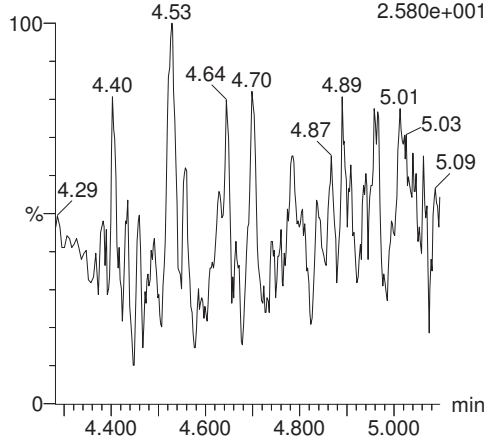
PFBS



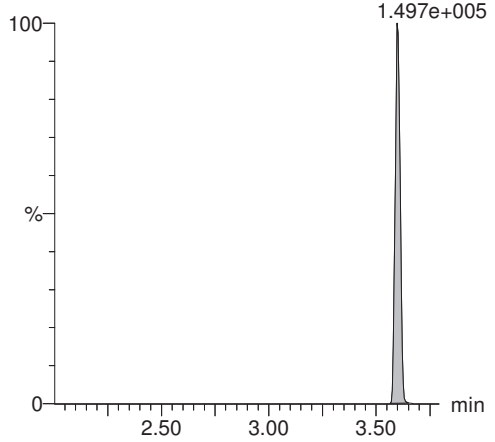
PFOA



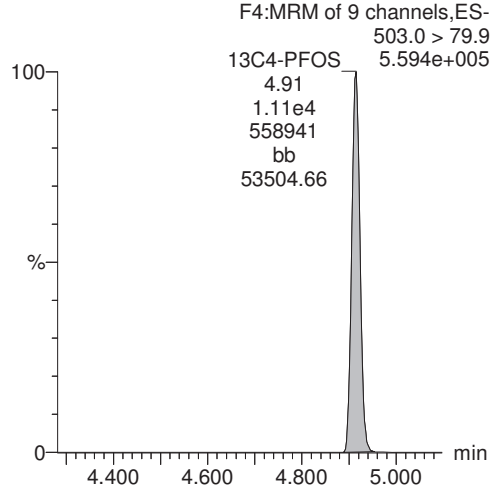
PFOS



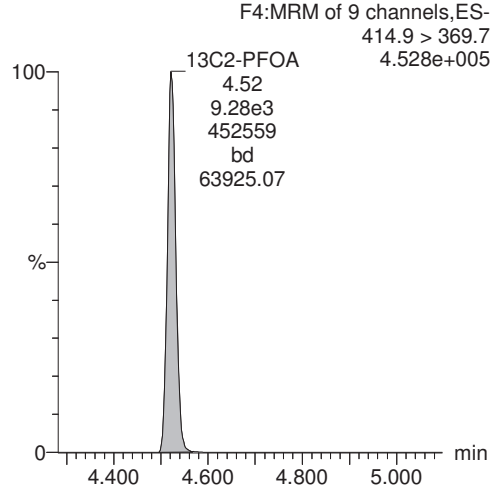
13C2-PFHxA



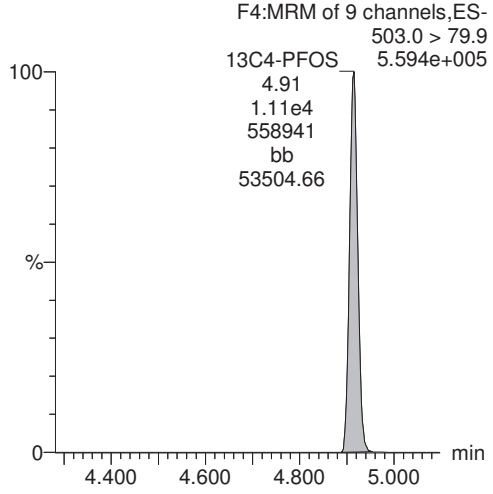
13C4-PFOS



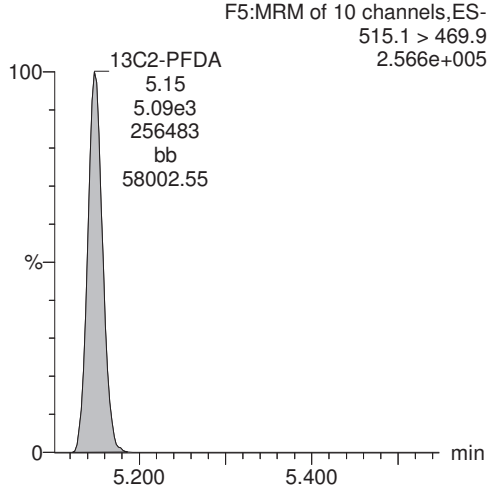
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-8.qld

Last Altered: Wednesday, December 20, 2017 10:37:46 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:40:26 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-8, Date: 19-Dec-2017, Time: 10:33:14, ID: B7L0122-BS1 LFB 0.25, Description: LFB

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.48e3	1.01e4		0.2500	3.24	3.22	7.02	34.4	97.2
2	5	PFOA	413 > 368.7	7.38e3	8.58e3		0.2500	4.52	4.52	8.60	43.1	107.7
3	7	PFOS	499 >79.9	4.06e3	1.01e4		0.2500	4.91	4.91	11.5	36.8	99.3
4	15	13C2-PFHxA	315 > 269.8	4.05e3	8.58e3	0.431	0.2500	3.63	3.60	4.72	43.8	109.5
5	16	13C2-PFDA	515.1 > 469.9	4.81e3	8.58e3	0.602	0.2500	5.15	5.15	5.61	37.2	93.1
6	18	13C2-PFOA	414.9 > 369.7	8.58e3	8.58e3	1.000	0.2500	4.41	4.52	10.0	40.0	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.01e4	1.01e4	1.000	0.2500	4.81	4.91	28.7	115	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

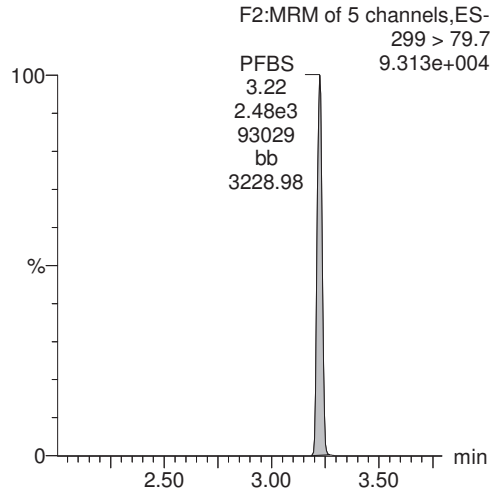
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-8.qld

Last Altered: Wednesday, December 20, 2017 10:37:46 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:40:26 Pacific Standard Time

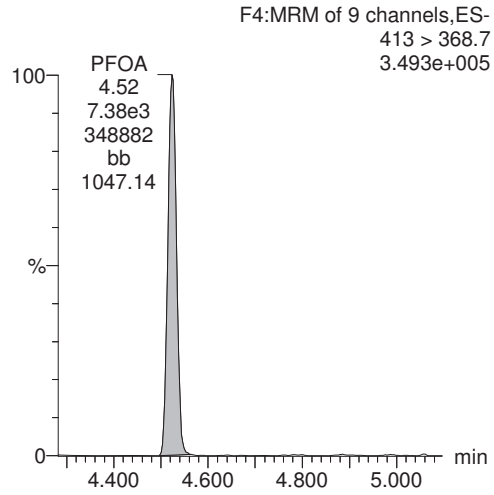
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-8, Date: 19-Dec-2017, Time: 10:33:14, ID: B7L0122-BS1 LFB 0.25, Description: LFB

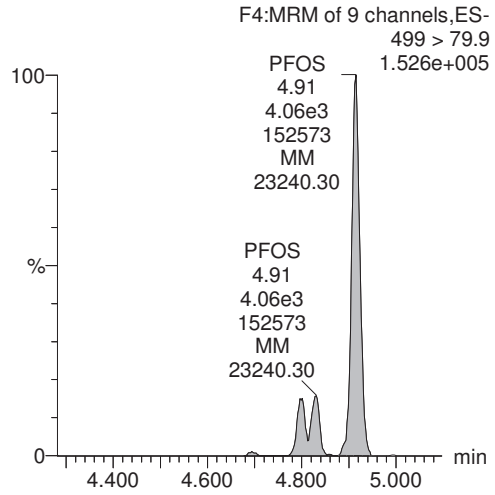
PFBS



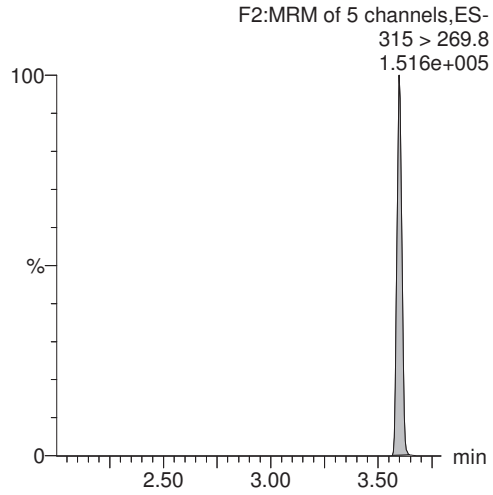
PFOA



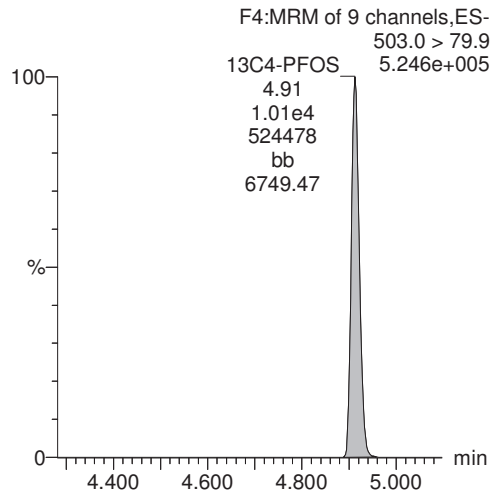
PFOS



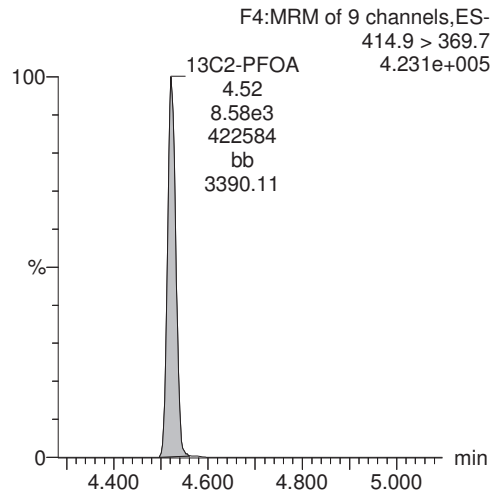
13C2-PFHxA



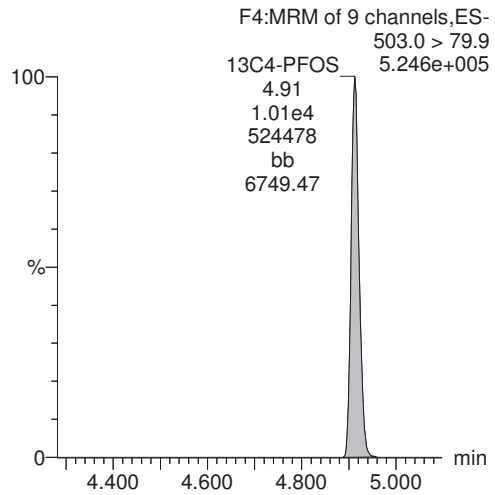
13C4-PFOS



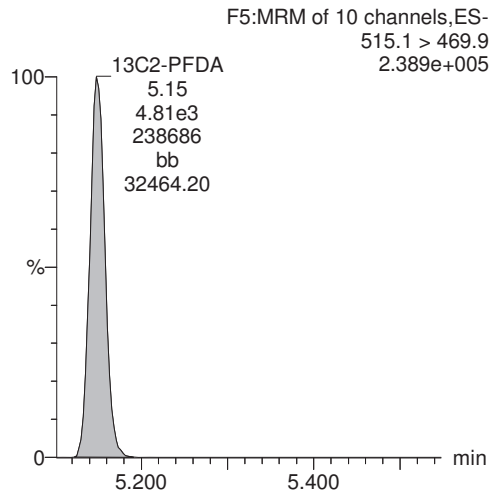
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-9.qld

Last Altered: Wednesday, December 20, 2017 10:42:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:43:22 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-9, Date: 19-Dec-2017, Time: 10:45:41, ID: B7L0122-BSD1 LFBD 0.25, Description: LFBD

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.73e3	1.13e4		0.2500	3.24	3.22	6.95	34.1	96.3
2	5	PFOA	413 > 368.7	8.76e3	1.03e4		0.2500	4.52	4.52	8.46	42.4	106.0
3	7	PFOS	499 >79.9	4.01e3	1.13e4		0.2500	4.91	4.91	10.2	32.6	88.0
4	15	13C2-PFHxA	315 > 269.8	4.15e3	1.03e4	0.431	0.2500	3.63	3.60	4.02	37.3	93.2
5	16	13C2-PFDA	515.1 > 469.9	5.44e3	1.03e4	0.602	0.2500	5.16	5.15	5.25	34.9	87.2
6	18	13C2-PFOA	414.9 > 369.7	1.03e4	1.03e4	1.000	0.2500	4.41	4.52	10.0	40.0	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.13e4	1.13e4	1.000	0.2500	4.81	4.91	28.7	115	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

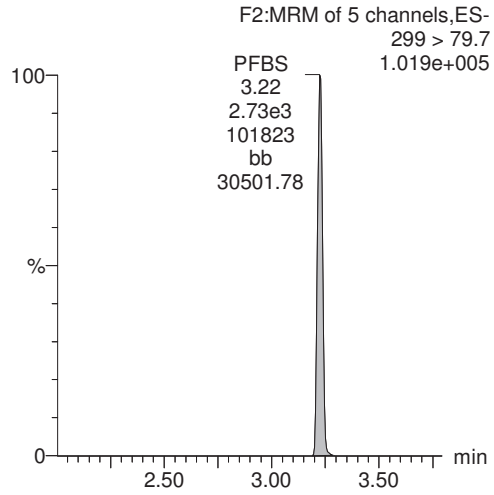
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-9.qld

Last Altered: Wednesday, December 20, 2017 10:42:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:43:22 Pacific Standard Time

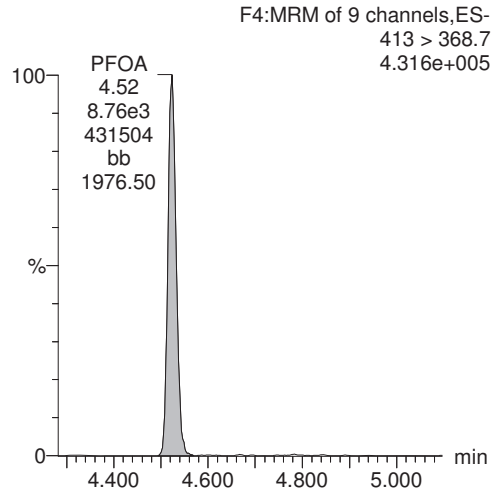
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-9, Date: 19-Dec-2017, Time: 10:45:41, ID: B7L0122-BSD1 LFBD 0.25, Description: LFBD

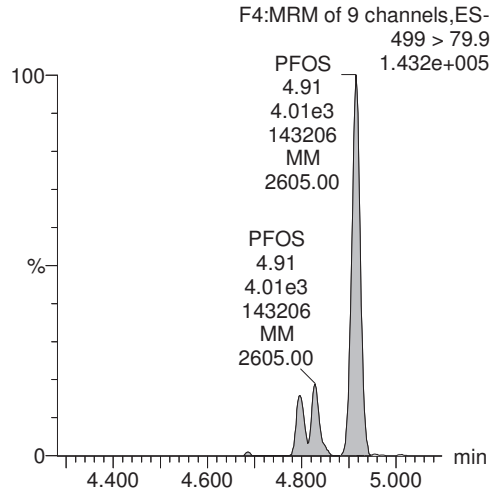
PFBS



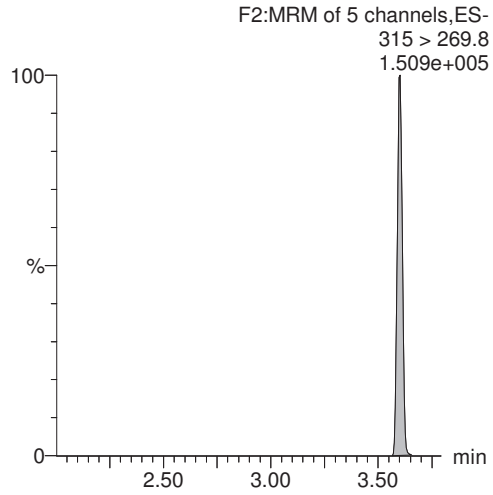
PFOA



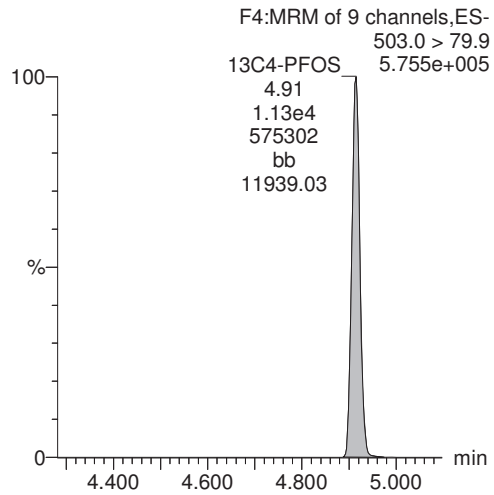
PFOS



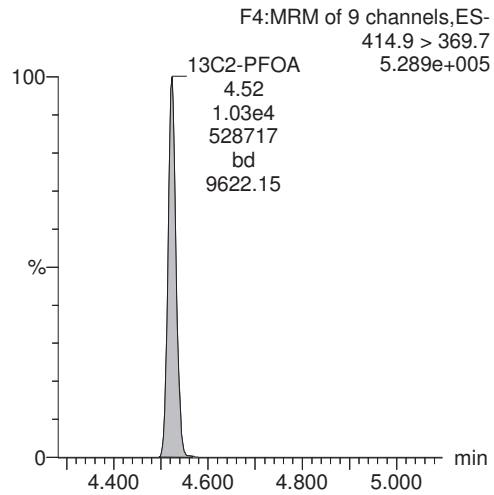
13C2-PFHxA



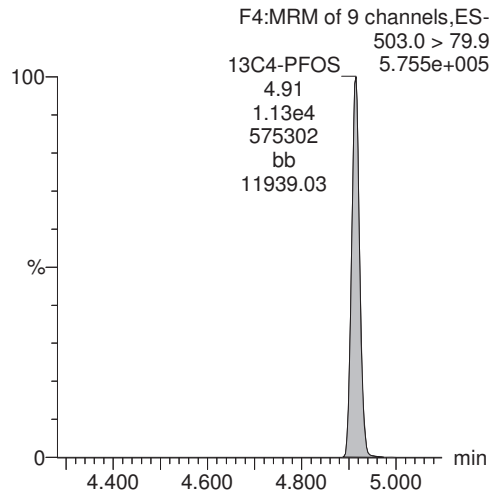
13C4-PFOS



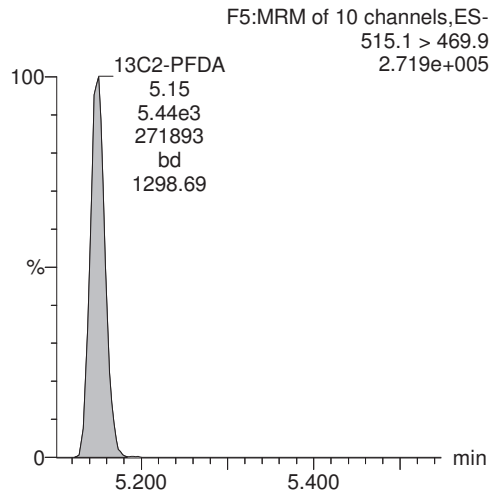
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-36.qld

Last Altered: Wednesday, December 20, 2017 10:53:24 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:54:07 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-36, Date: 19-Dec-2017, Time: 16:21:32, ID: 1701928-01 CH-AT-1RW153-1217 0.25, Description: CH-AT-1RW153-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		8.91e3		0.2511	3.24				
2	5	PFOA	413 > 368.7	3.65e1	9.18e3		0.2511	4.52	4.52	0.0398	0.199	
3	7	PFOS	499 >79.9		8.91e3		0.2511	4.91				
4	15	13C2-PFHxA	315 > 269.8	3.82e3	9.18e3	0.431	0.2511	3.63	3.60	4.16	38.5	96.6
5	16	13C2-PFDA	515.1 > 469.9	3.94e3	9.18e3	0.602	0.2511	5.15	5.14	4.30	28.4	71.3
6	18	13C2-PFOA	414.9 > 369.7	9.18e3	9.18e3	1.000	0.2511	4.41	4.52	10.0	39.8	100.0
7	19	13C4-PFOS	503.0 > 79.9	8.91e3	8.91e3	1.000	0.2511	4.81	4.91	28.7	114	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

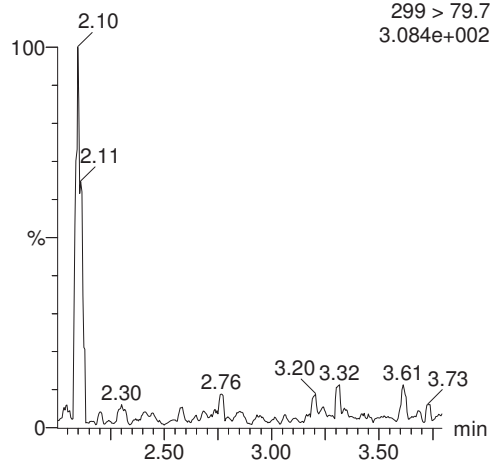
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-36.qld

Last Altered: Wednesday, December 20, 2017 10:53:24 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:54:07 Pacific Standard Time

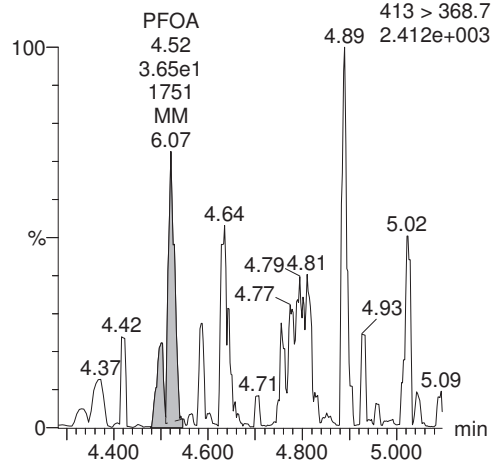
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-36, Date: 19-Dec-2017, Time: 16:21:32, ID: 1701928-01 CH-AT-1RW153-1217 0.25, Description: CH-AT-1RW153-1217

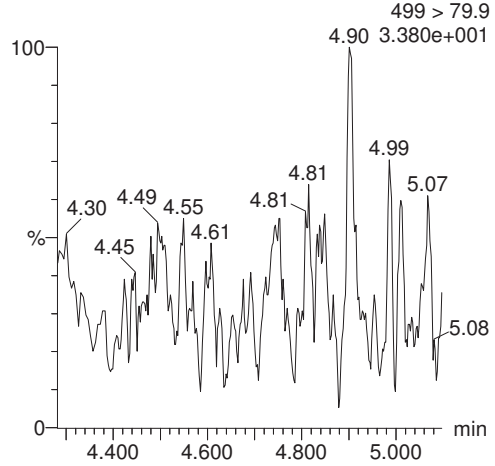
PFBS



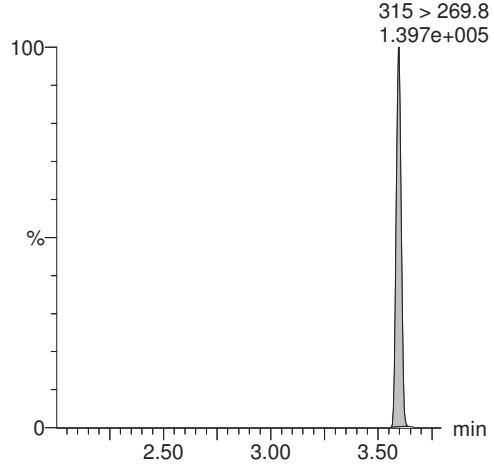
PFOA



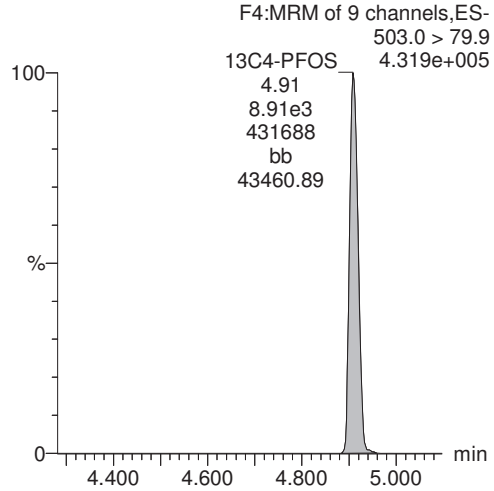
PFOS



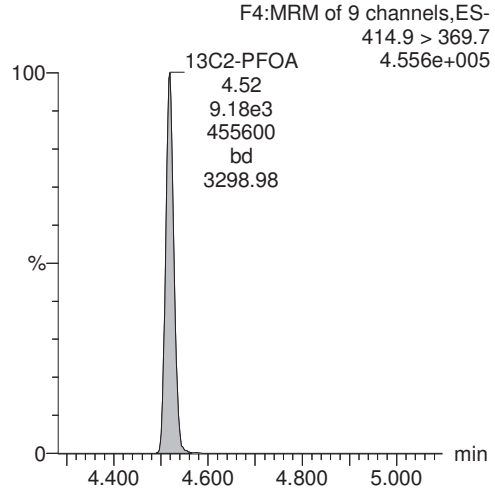
13C2-PFHxA



13C4-PFOS



13C2-PFOA



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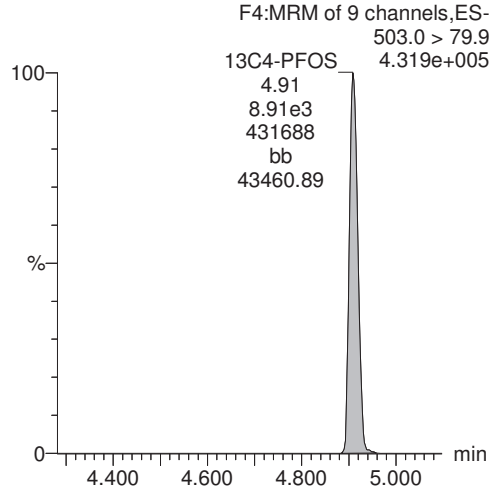
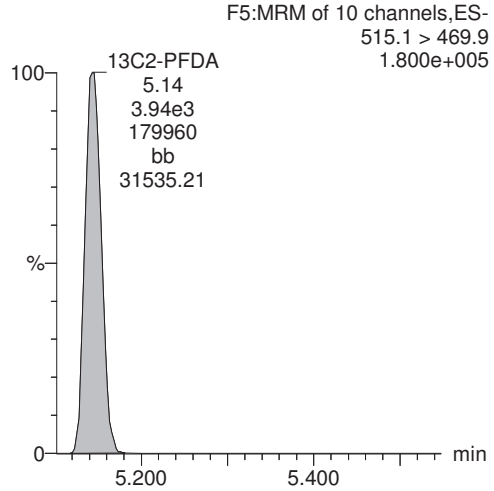


13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-37.qld

Last Altered: Wednesday, December 20, 2017 10:57:35 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:58:34 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-37, Date: 19-Dec-2017, Time: 16:33:57, ID: 1701928-02 CH-AT-1FB153-1217 0.25, Description: CH-AT-1FB153-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.02e4		0.2646	3.24				
2	5	PFOA	413 > 368.7	4.57e1	8.35e3		0.2646	4.52	4.52	0.0547	0.259	
3	7	PFOS	499 >79.9		1.02e4		0.2646	4.91				
4	15	13C2-PFHxA	315 > 269.8	3.76e3	8.35e3	0.431	0.2646	3.62	3.59	4.50	39.4	104.3
5	16	13C2-PFDA	515.1 > 469.9	4.48e3	8.35e3	0.602	0.2646	5.15	5.14	5.36	33.6	89.0
6	18	13C2-PFOA	414.9 > 369.7	8.35e3	8.35e3	1.000	0.2646	4.41	4.52	10.0	37.8	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.02e4	1.02e4	1.000	0.2646	4.81	4.91	28.7	108	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

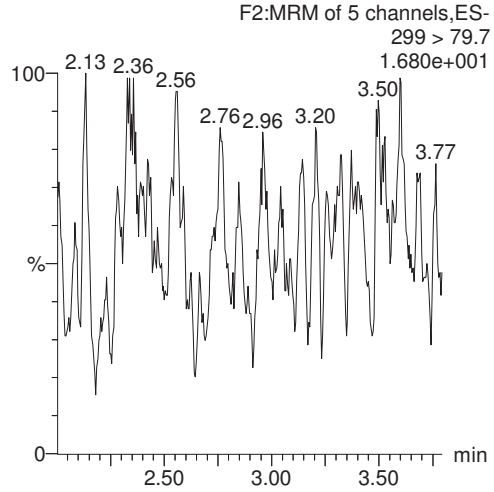
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-37.qld

Last Altered: Wednesday, December 20, 2017 10:57:35 Pacific Standard Time
Printed: Wednesday, December 20, 2017 10:58:34 Pacific Standard Time

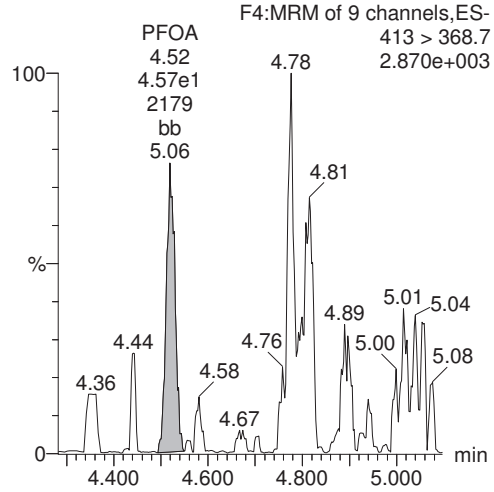
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-37, Date: 19-Dec-2017, Time: 16:33:57, ID: 1701928-02 CH-AT-1FB153-1217 0.25, Description: CH-AT-1FB153-1217

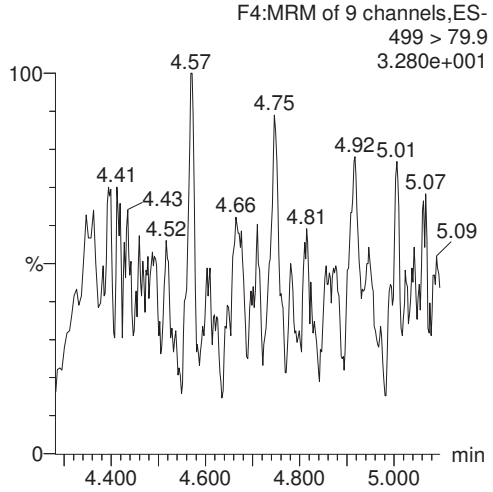
PFBS



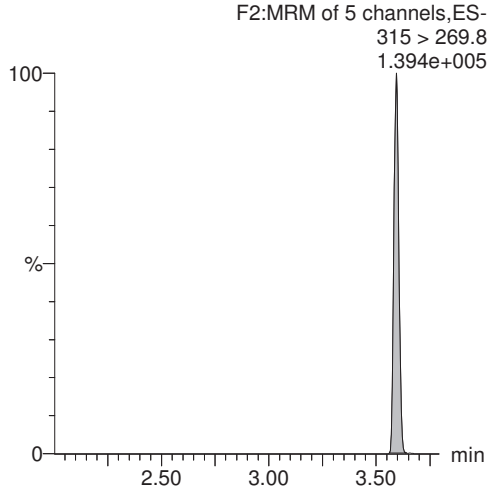
PFOA



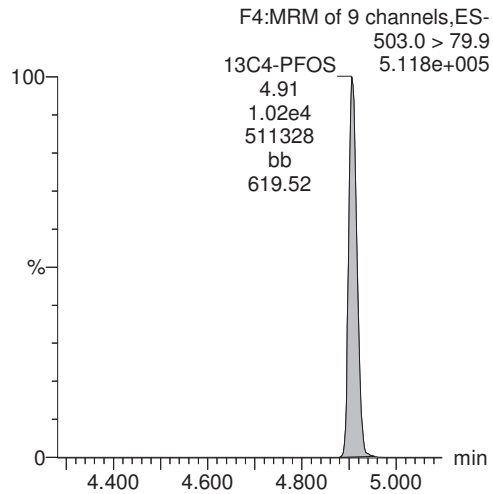
PFOS



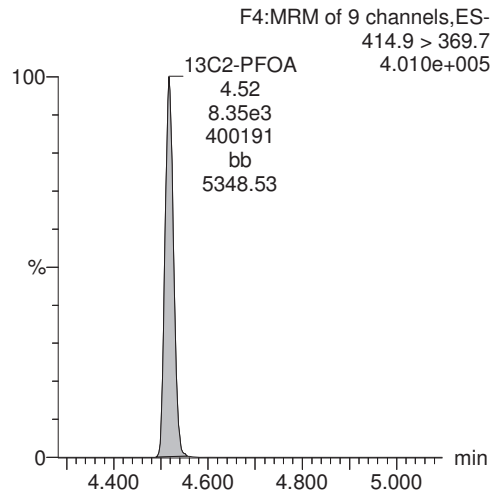
13C2-PFHxA



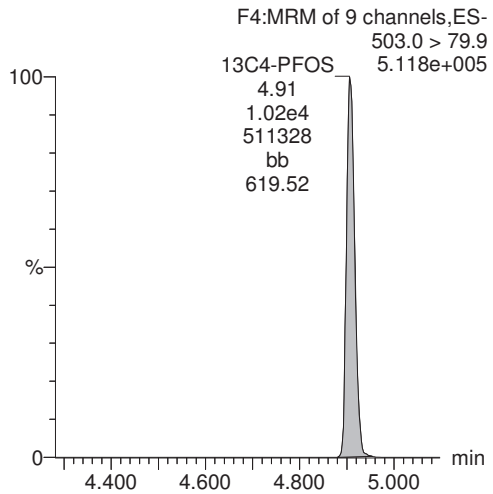
13C4-PFOS



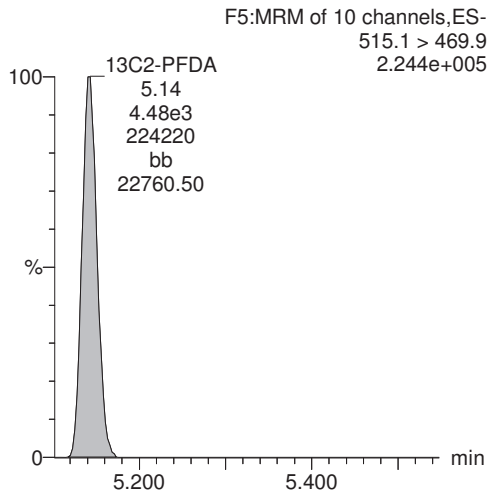
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-38.qld

Last Altered: Wednesday, December 20, 2017 12:54:57 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:57:12 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-38, Date: 19-Dec-2017, Time: 16:46:23, ID: 1701928-03 CH-AT-1RW154-1217 0.25, Description: CH-AT-1RW154-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.16e4		0.2678	3.24				
2	5	PFOA	413 > 368.7	4.06e1	9.92e3		0.2678	4.52	4.52	0.0410	0.192	
3	7	PFOS	499 >79.9		1.16e4		0.2678	4.91				
4	15	13C2-PFHxA	315 > 269.8	4.21e3	9.92e3	0.431	0.2678	3.62	3.59	4.25	36.8	98.6
5	16	13C2-PFDA	515.1 > 469.9	4.11e3	9.92e3	0.602	0.2678	5.15	5.14	4.15	25.7	68.8
6	18	13C2-PFOA	414.9 > 369.7	9.92e3	9.92e3	1.000	0.2678	4.41	4.52	10.0	37.3	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.16e4	1.16e4	1.000	0.2678	4.81	4.91	28.7	107	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

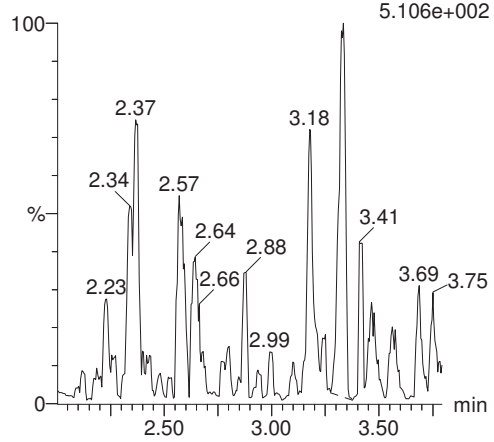
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-38.qld

Last Altered: Wednesday, December 20, 2017 12:54:57 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:57:12 Pacific Standard Time

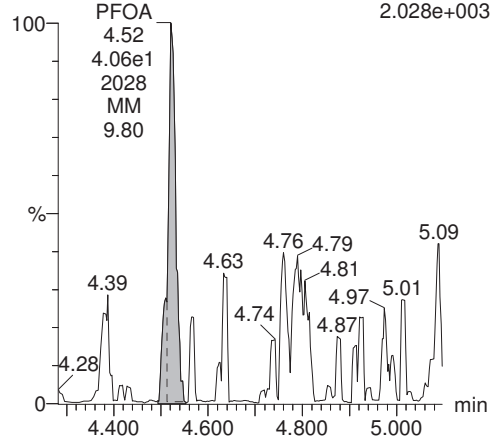
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-38, Date: 19-Dec-2017, Time: 16:46:23, ID: 1701928-03 CH-AT-1RW154-1217 0.25, Description: CH-AT-1RW154-1217

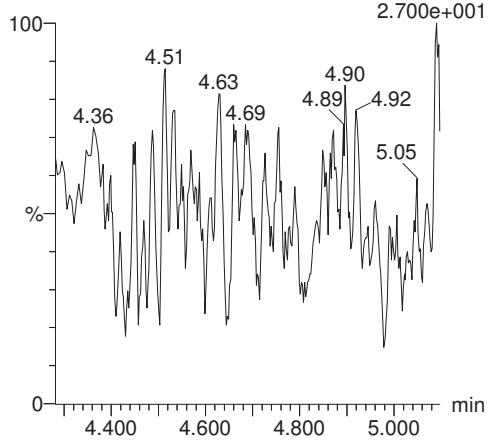
PFBS



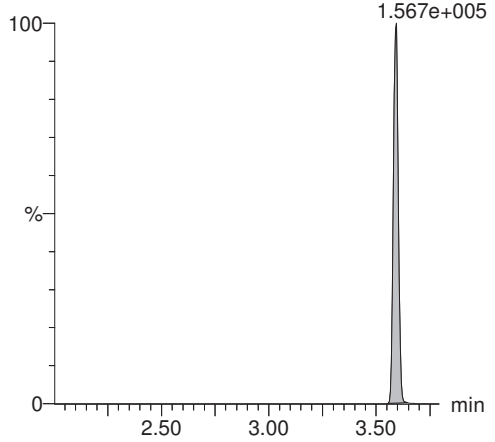
PFOA



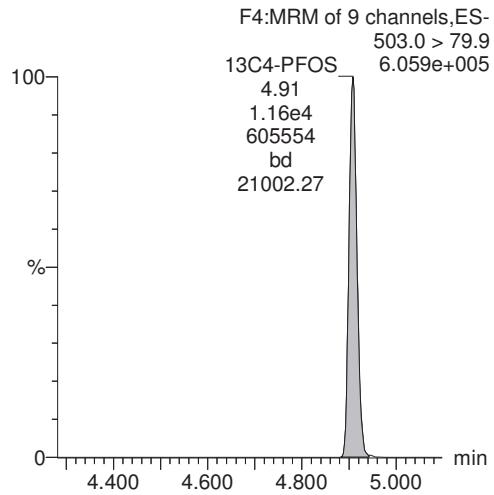
PFOS



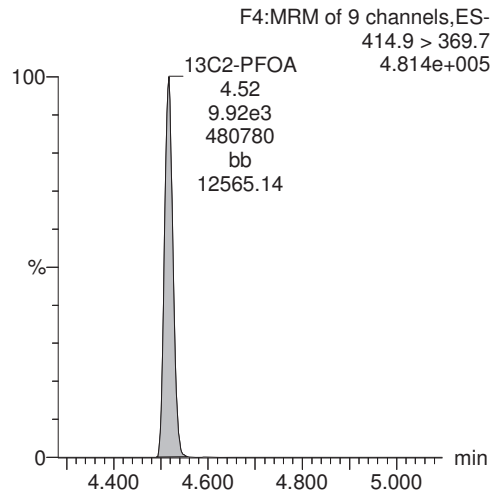
13C2-PFHxA



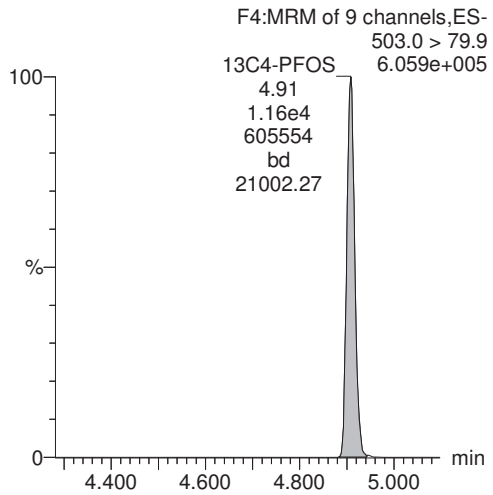
13C4-PFOS



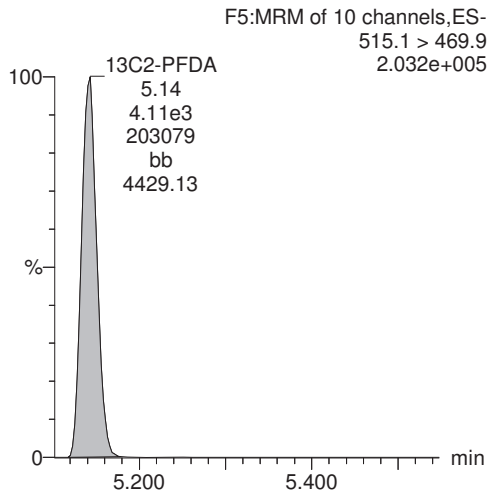
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-39.qld

Last Altered: Wednesday, December 20, 2017 11:04:56 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:05:10 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-39, Date: 19-Dec-2017, Time: 16:58:50, ID: 1701928-04 CH-AT-1FB154-1217 0.25, Description: CH-AT-1FB154-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.18e4		0.2638	3.24				
2	5	PFOA	413 > 368.7	8.16e1	9.14e3		0.2638	4.52	4.51	0.0893	0.424	
3	7	PFOS	499 >79.9		1.18e4		0.2638	4.91				
4	15	13C2-PFHxA	315 > 269.8	4.12e3	9.14e3	0.431	0.2638	3.62	3.59	4.51	39.7	104.8
5	16	13C2-PFDA	515.1 > 469.9	5.03e3	9.14e3	0.602	0.2638	5.15	5.14	5.50	34.6	91.4
6	18	13C2-PFOA	414.9 > 369.7	9.14e3	9.14e3	1.000	0.2638	4.41	4.52	10.0	37.9	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.18e4	1.18e4	1.000	0.2638	4.81	4.91	28.7	109	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

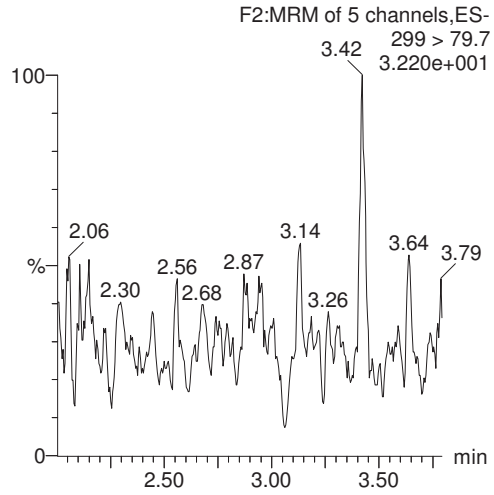
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-39.qld

Last Altered: Wednesday, December 20, 2017 11:04:56 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:05:10 Pacific Standard Time

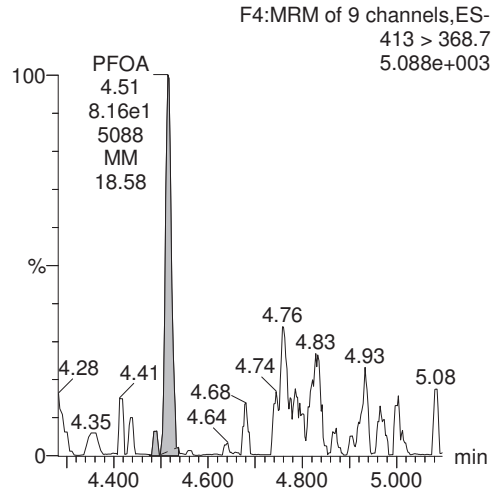
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-39, Date: 19-Dec-2017, Time: 16:58:50, ID: 1701928-04 CH-AT-1FB154-1217 0.25, Description: CH-AT-1FB154-1217

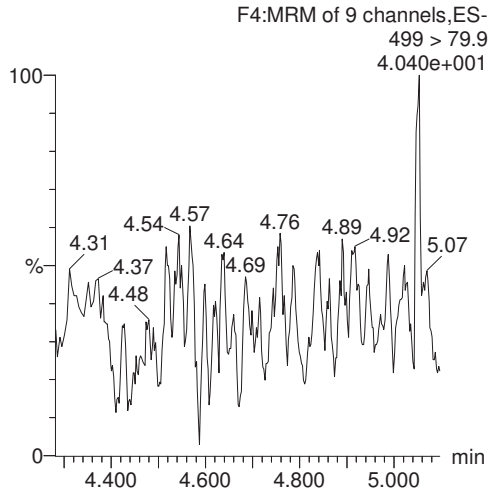
PFBS



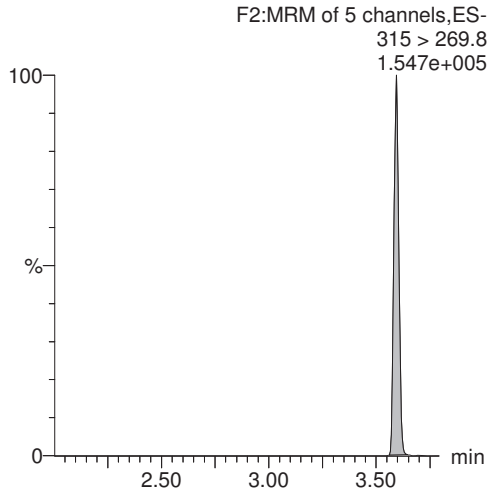
PFOA



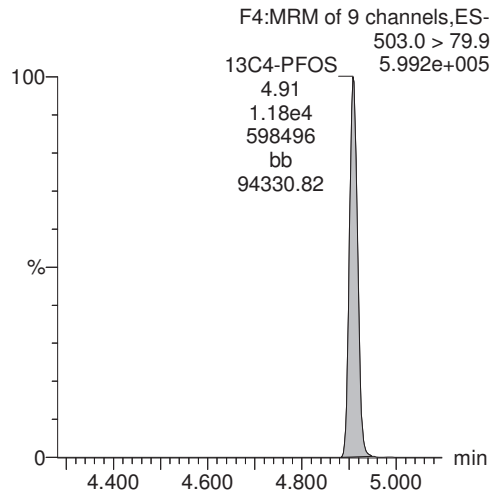
PFOS



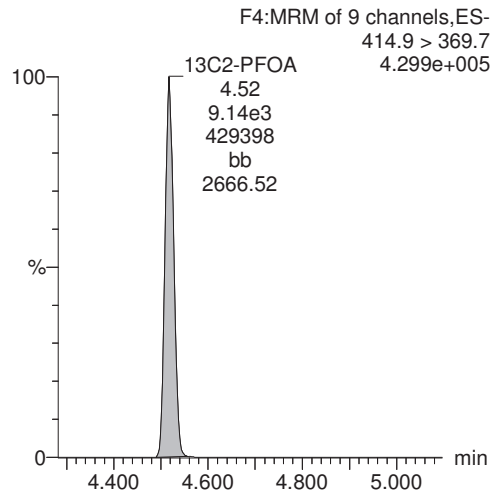
13C2-PFHxA



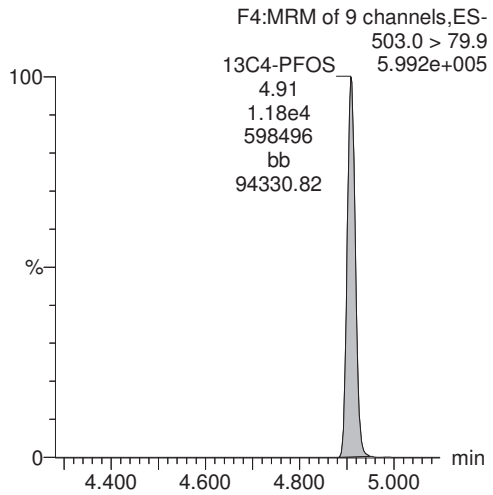
13C4-PFOS



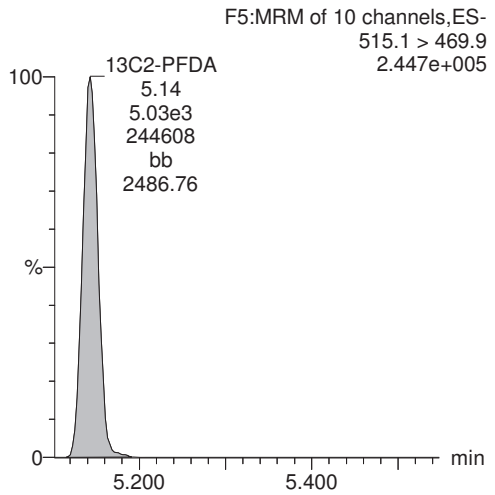
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-40.qld

Last Altered: Wednesday, December 20, 2017 12:52:23 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:52:45 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-40, Date: 19-Dec-2017, Time: 17:11:17, ID: 1701928-05 CH-AT-1RW155-1217 0.25, Description: CH-AT-1RW155-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	4.21e1	1.07e4		0.2477	3.24	3.22	0.113	0.561	
2	5	PFOA	413 > 368.7	4.84e2	1.04e4		0.2477	4.52	4.52	0.465	2.35	
3	7	PFOS	499 >79.9		1.07e4		0.2477	4.91				
4	15	13C2-PFHxA	315 > 269.8	4.42e3	1.04e4	0.431	0.2477	3.63	3.60	4.25	39.8	98.6
5	16	13C2-PFDA	515.1 > 469.9	4.50e3	1.04e4	0.602	0.2477	5.15	5.14	4.32	29.0	71.8
6	18	13C2-PFOA	414.9 > 369.7	1.04e4	1.04e4	1.000	0.2477	4.41	4.52	10.0	40.4	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.07e4	1.07e4	1.000	0.2477	4.81	4.91	28.7	116	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

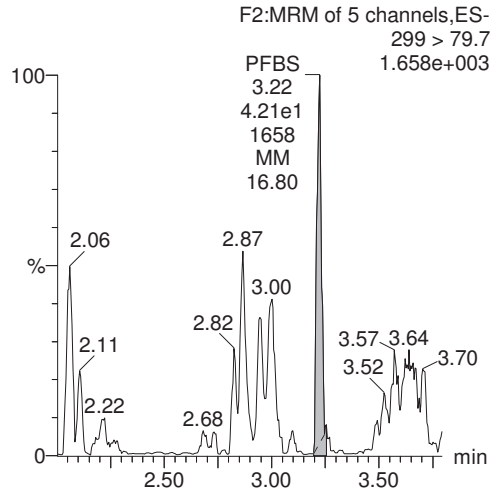
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-40.qld

Last Altered: Wednesday, December 20, 2017 12:52:23 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:52:45 Pacific Standard Time

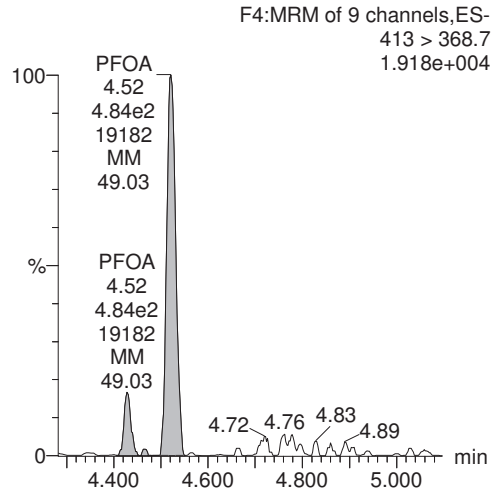
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-40, Date: 19-Dec-2017, Time: 17:11:17, ID: 1701928-05 CH-AT-1RW155-1217 0.25, Description: CH-AT-1RW155-1217

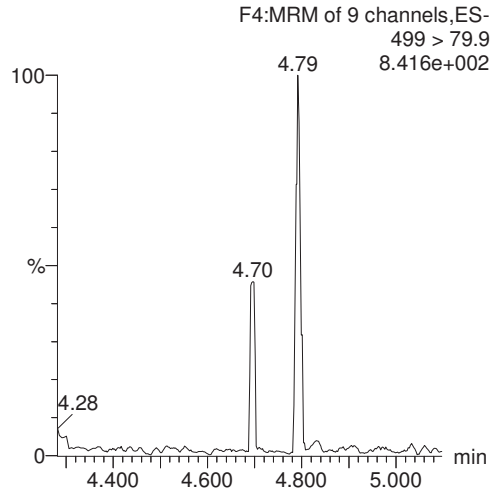
PFBS



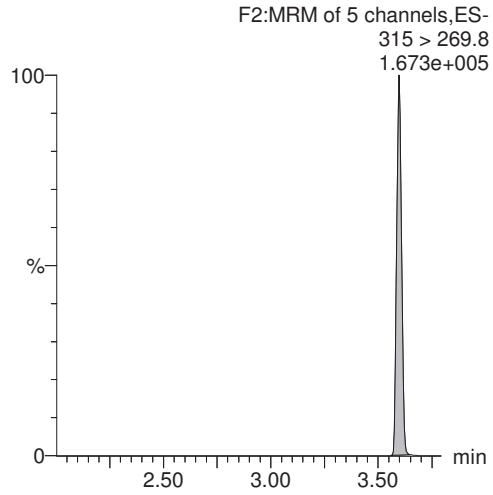
PFOA



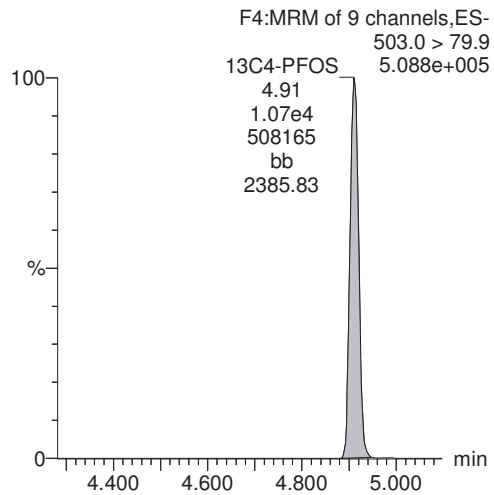
PFOS



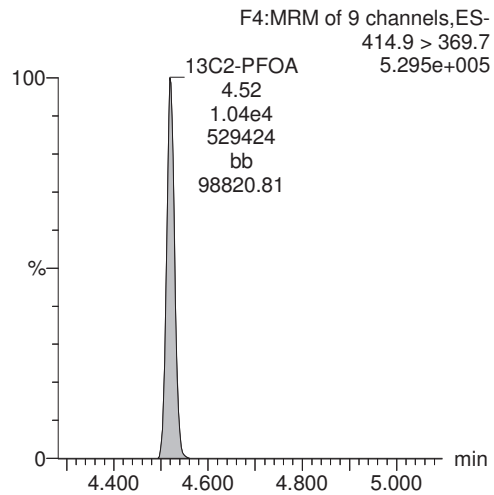
13C2-PFHxA



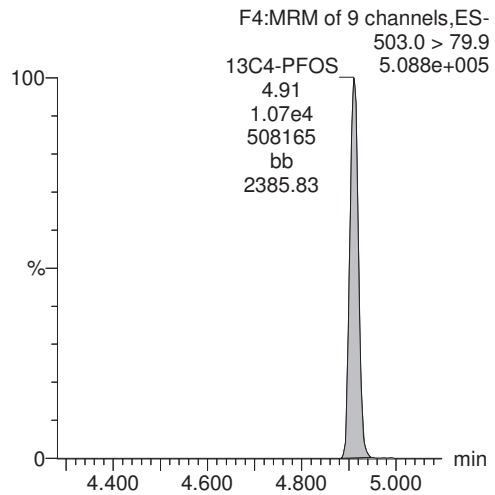
13C4-PFOS



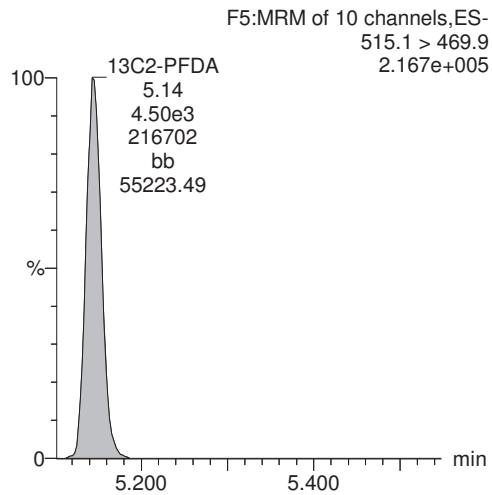
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-41.qld

Last Altered: Wednesday, December 20, 2017 11:09:26 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:09:52 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-41, Date: 19-Dec-2017, Time: 17:23:45, ID: 1701928-06 CH-AT-1FB155-1217 0.25, Description: CH-AT-1FB155-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.03e4		0.2643	3.24				
2	5	PFOA	413 > 368.7	3.70e1	8.47e3		0.2643	4.52	4.51	0.0437	0.207	
3	7	PFOS	499 >79.9	6.37e0	1.03e4		0.2643	4.91	4.91	0.0177	0.0534	
4	15	13C2-PFHxA	315 > 269.8	4.12e3	8.47e3	0.431	0.2643	3.62	3.59	4.87	42.8	113.0
5	16	13C2-PFDA	515.1 > 469.9	4.91e3	8.47e3	0.602	0.2643	5.15	5.14	5.80	36.4	96.2
6	18	13C2-PFOA	414.9 > 369.7	8.47e3	8.47e3	1.000	0.2643	4.41	4.52	10.0	37.8	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.03e4	1.03e4	1.000	0.2643	4.81	4.91	28.7	109	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

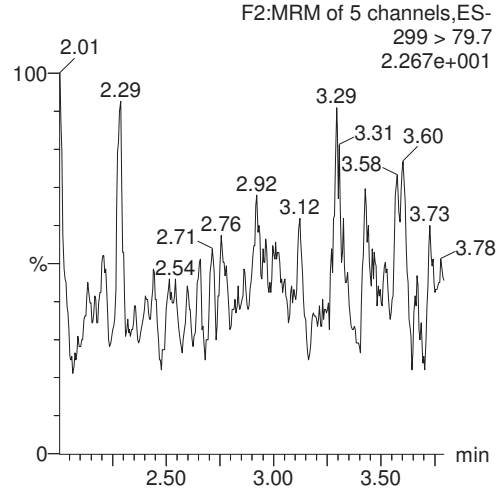
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-41.qld

Last Altered: Wednesday, December 20, 2017 11:09:26 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:09:52 Pacific Standard Time

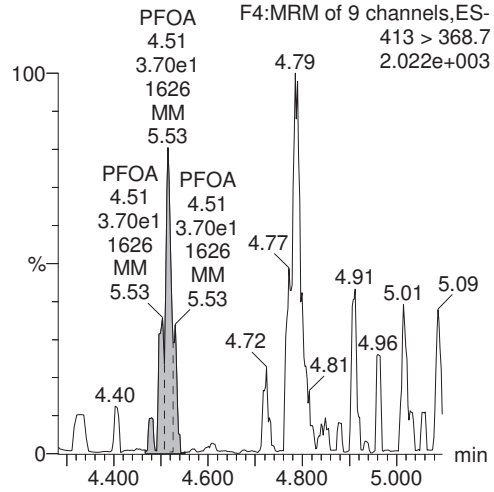
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-41, Date: 19-Dec-2017, Time: 17:23:45, ID: 1701928-06 CH-AT-1FB155-1217 0.25, Description: CH-AT-1FB155-1217

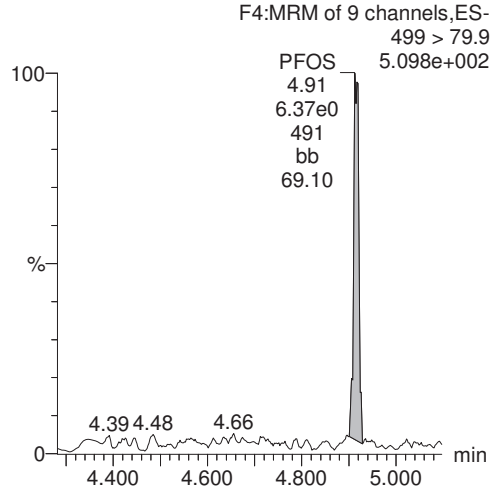
PFBS



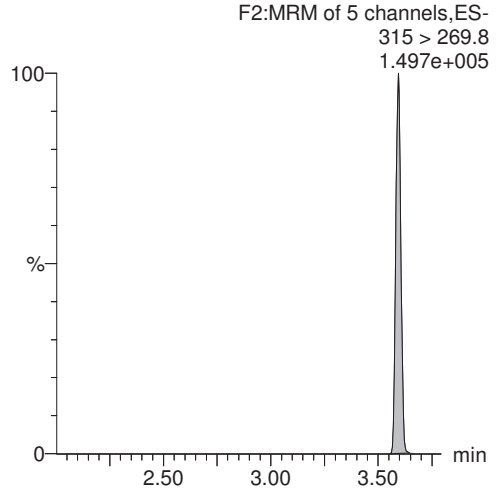
PFOA



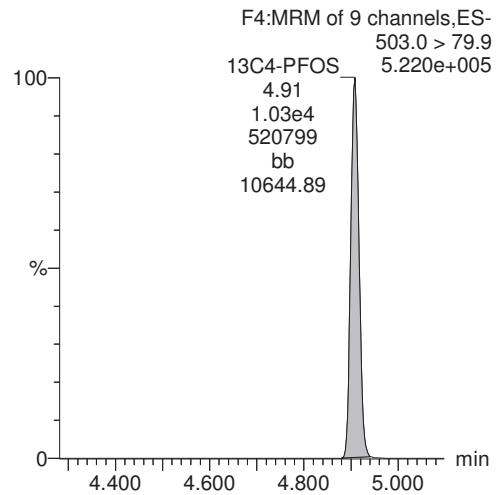
PFOS



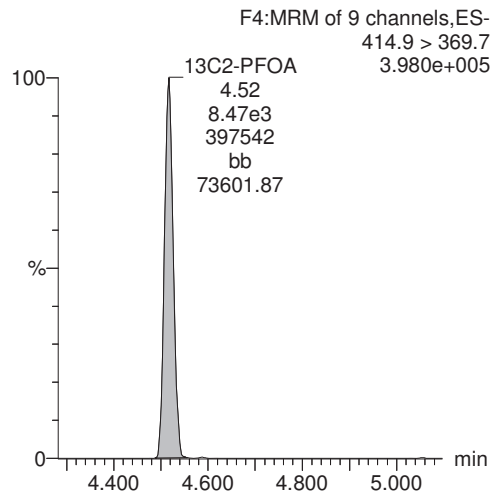
13C2-PFHxA



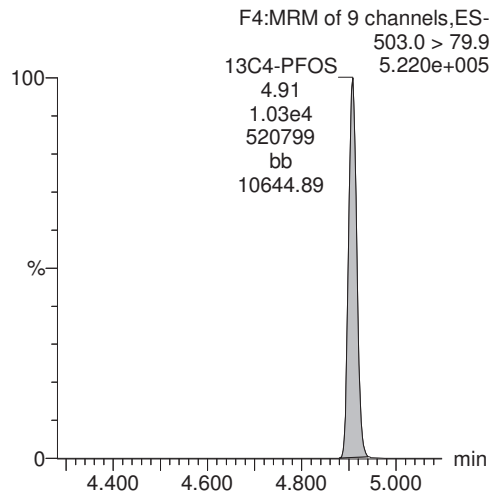
13C4-PFOS



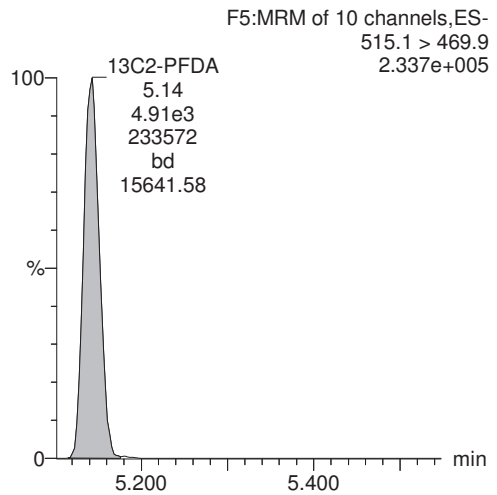
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-42.qld

Last Altered: Wednesday, December 20, 2017 12:44:41 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:45:20 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-42, Date: 19-Dec-2017, Time: 17:36:10, ID: 1701928-07 CH-AT-1RW156-1217 0.25, Description: CH-AT-1RW156-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.13e4		0.2724	3.24				
2	5	PFOA	413 > 368.7	8.22e1	8.85e3		0.2724	4.52	4.52	0.0929	0.427	
3	7	PFOS	499 >79.9		1.13e4		0.2724	4.91				
4	15	13C2-PFHxA	315 > 269.8	3.95e3	8.85e3	0.431	0.2724	3.62	3.59	4.47	38.1	103.7
5	16	13C2-PFDA	515.1 > 469.9	4.71e3	8.85e3	0.602	0.2724	5.15	5.14	5.32	32.5	88.4
6	18	13C2-PFOA	414.9 > 369.7	8.85e3	8.85e3	1.000	0.2724	4.41	4.52	10.0	36.7	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.13e4	1.13e4	1.000	0.2724	4.81	4.91	28.7	105	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

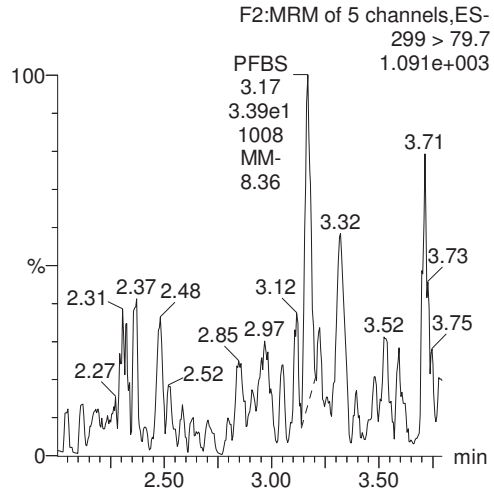
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-42.qld

Last Altered: Wednesday, December 20, 2017 12:44:41 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:45:20 Pacific Standard Time

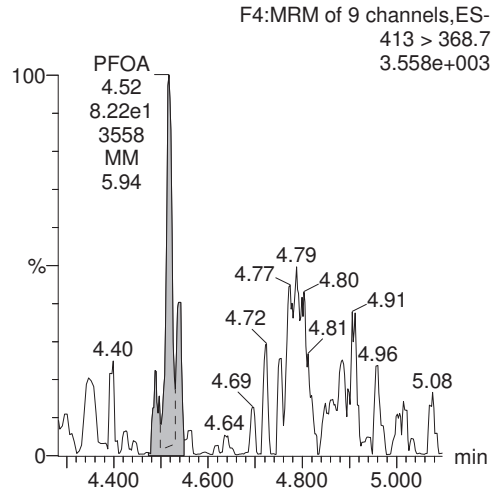
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-42, Date: 19-Dec-2017, Time: 17:36:10, ID: 1701928-07 CH-AT-1RW156-1217 0.25, Description: CH-AT-1RW156-1217

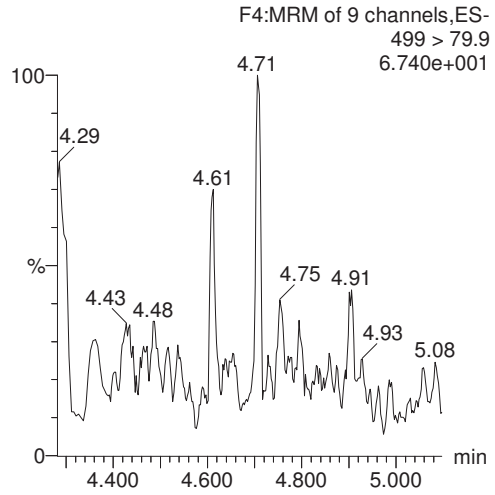
PFBS



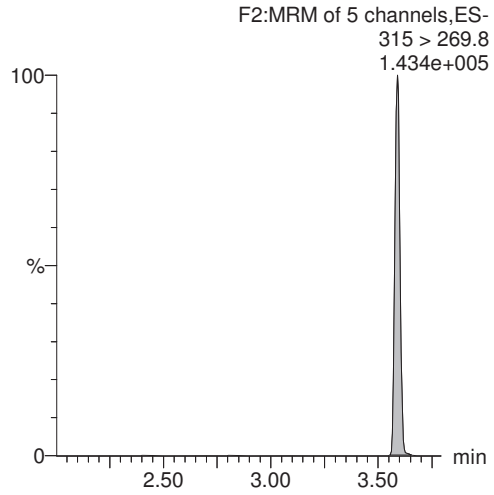
PFOA



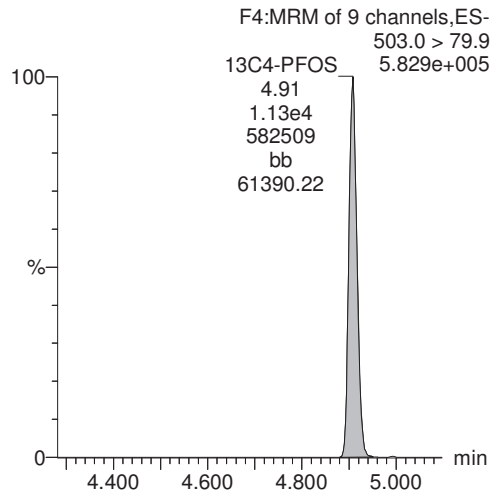
PFOS



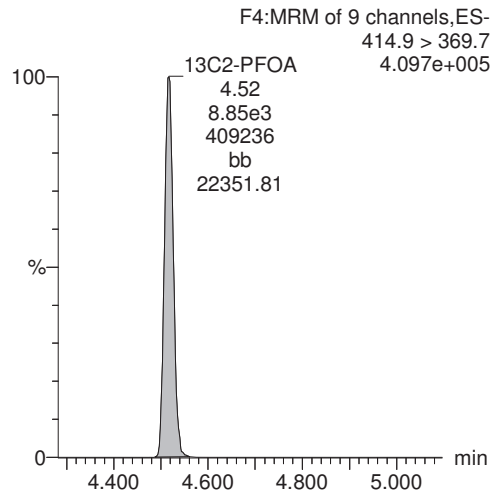
13C2-PFHxA



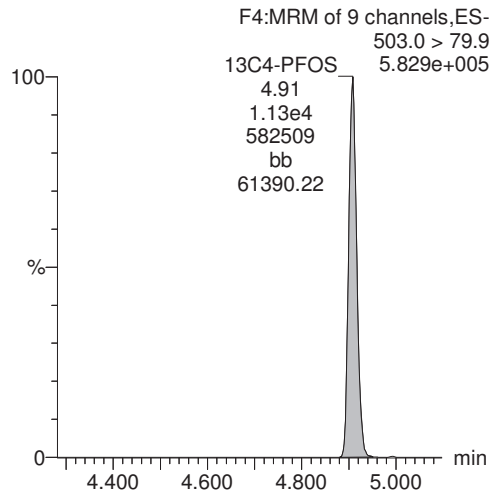
13C4-PFOS



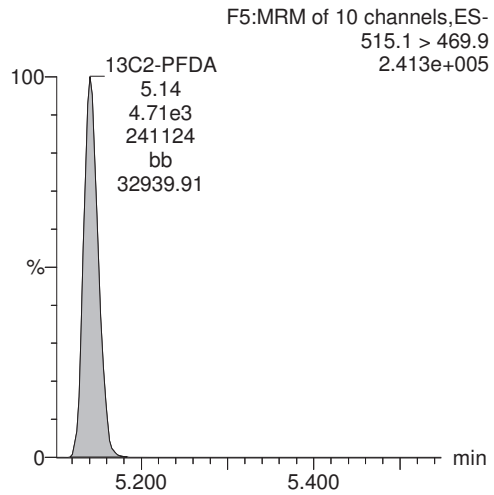
13C2-PFOA



13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-43.qld

Last Altered: Wednesday, December 20, 2017 11:28:35 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:29:16 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-43, Date: 19-Dec-2017, Time: 17:48:34, ID: 1701928-08 CH-AT-1FB156-1217 0.25, Description: CH-AT-1FB156-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.02e4		0.2600	3.24				
2	5	PFOA	413 > 368.7	8.32e1	8.30e3		0.2600	4.51	4.52	0.100	0.483	
3	7	PFOS	499 >79.9		1.02e4		0.2600	4.90				
4	15	13C2-PFHxA	315 > 269.8	3.77e3	8.30e3	0.431	0.2600	3.62	3.59	4.54	40.5	105.4
5	16	13C2-PFDA	515.1 > 469.9	4.31e3	8.30e3	0.602	0.2600	5.14	5.14	5.19	33.1	86.2
6	18	13C2-PFOA	414.9 > 369.7	8.30e3	8.30e3	1.000	0.2600	4.41	4.51	10.0	38.5	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.02e4	1.02e4	1.000	0.2600	4.81	4.90	28.7	110	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

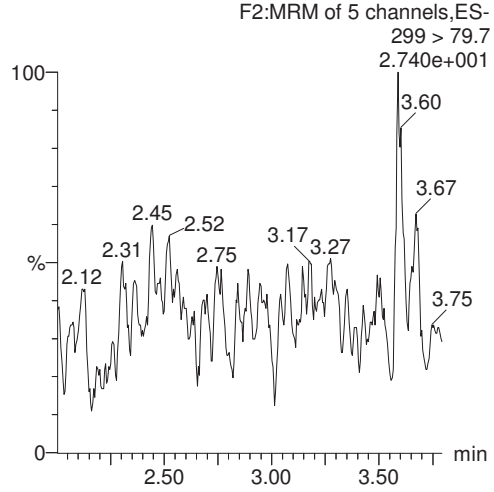
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-43.qld

Last Altered: Wednesday, December 20, 2017 11:28:35 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:29:16 Pacific Standard Time

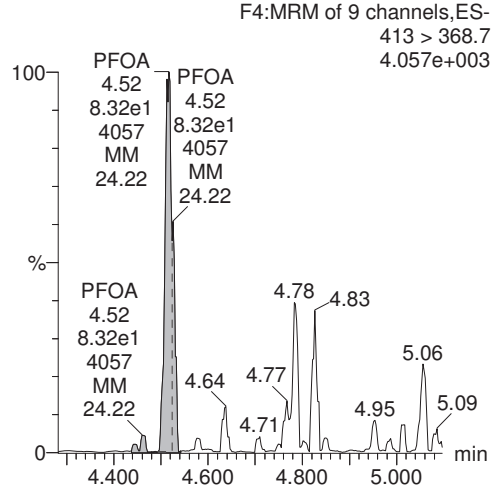
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-43, Date: 19-Dec-2017, Time: 17:48:34, ID: 1701928-08 CH-AT-1FB156-1217 0.25, Description: CH-AT-1FB156-1217

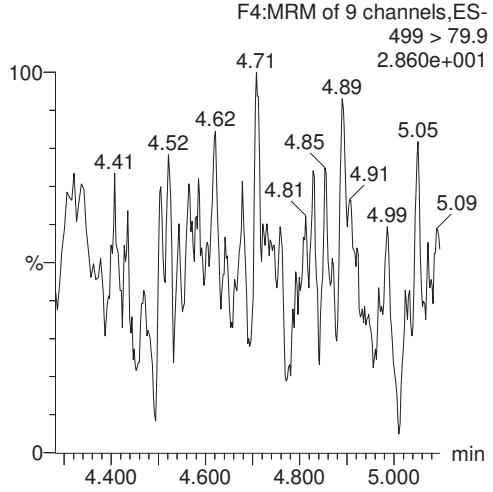
PFBS



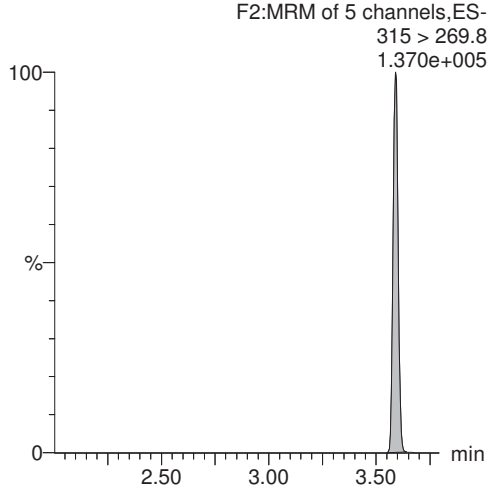
PFOA



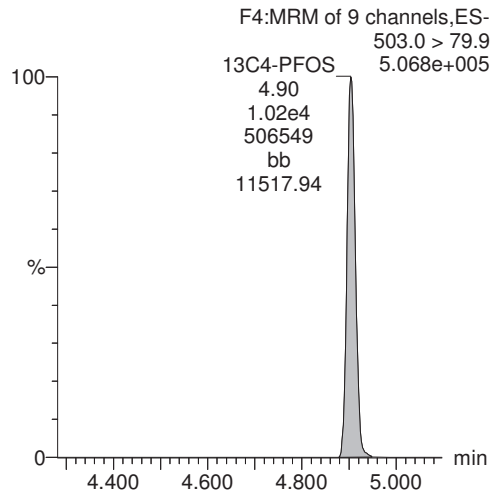
PFOS



13C2-PFHxA



13C4-PFOS



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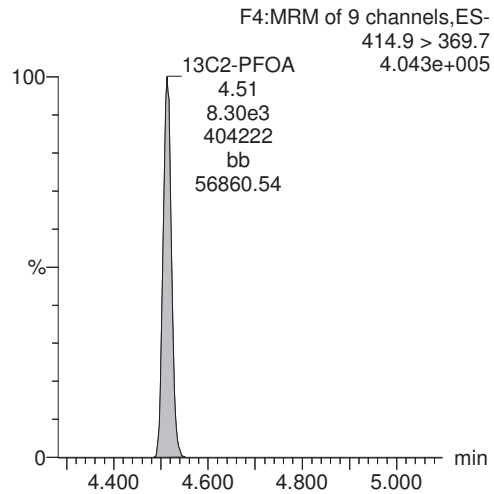

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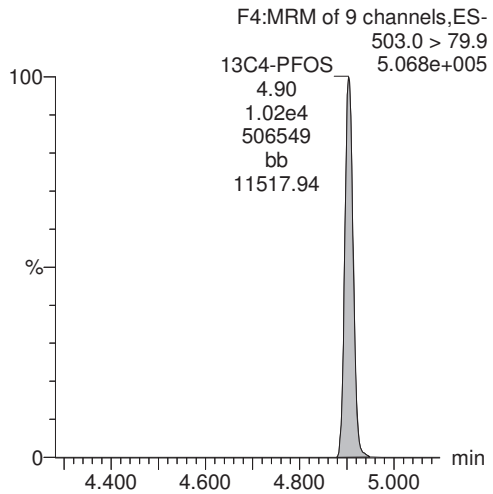

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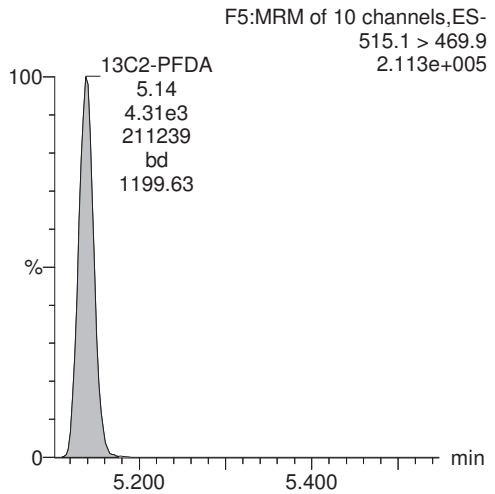


MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-44.qld

Last Altered: Wednesday, December 20, 2017 12:49:27 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:49:58 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-44, Date: 19-Dec-2017, Time: 18:00:58, ID: 1701928-09 CH-AT-1RW157-1217 0.25, Description: CH-AT-1RW157-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.27e4		0.2679	3.23				
2	5	PFOA	413 > 368.7		1.04e4		0.2679	4.51				
3	7	PFOS	499 >79.9		1.27e4		0.2679	4.90				
4	15	13C2-PFHxA	315 > 269.8	3.98e3	1.04e4	0.431	0.2679	3.62	3.58	3.82	33.1	88.6
5	16	13C2-PFDA	515.1 > 469.9	4.45e3	1.04e4	0.602	0.2679	5.14	5.14	4.26	26.4	70.8
6	18	13C2-PFOA	414.9 > 369.7	1.04e4	1.04e4	1.000	0.2679	4.41	4.51	10.0	37.3	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.27e4	1.27e4	1.000	0.2679	4.81	4.90	28.7	107	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

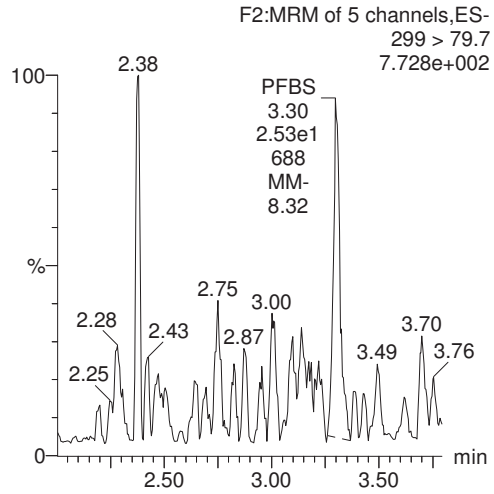
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-44.qld

Last Altered: Wednesday, December 20, 2017 12:49:27 Pacific Standard Time
Printed: Wednesday, December 20, 2017 12:49:58 Pacific Standard Time

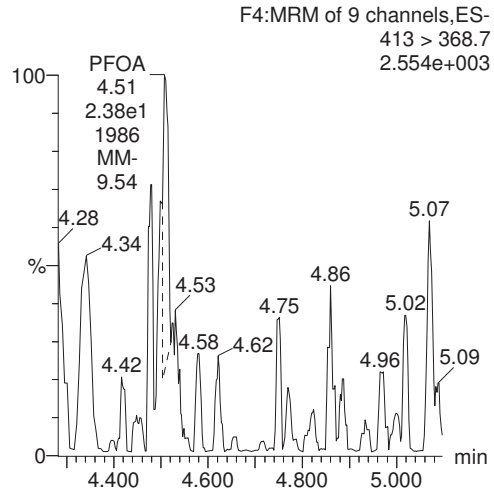
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-44, Date: 19-Dec-2017, Time: 18:00:58, ID: 1701928-09 CH-AT-1RW157-1217 0.25, Description: CH-AT-1RW157-1217

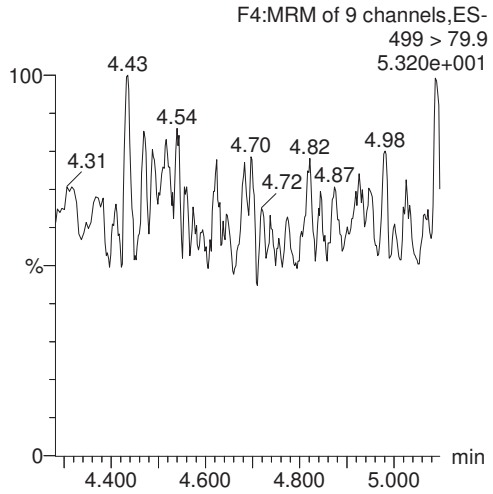
PFBS



PFOA



PFOS



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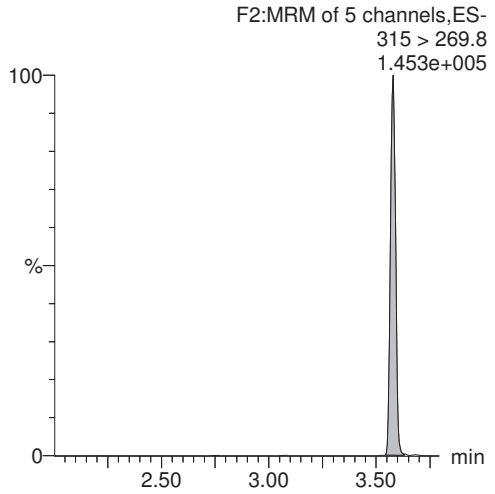

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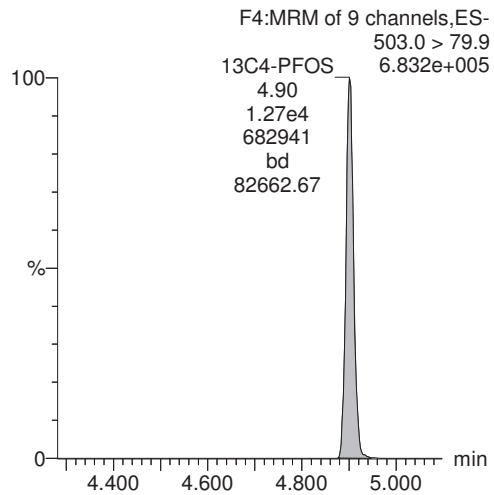

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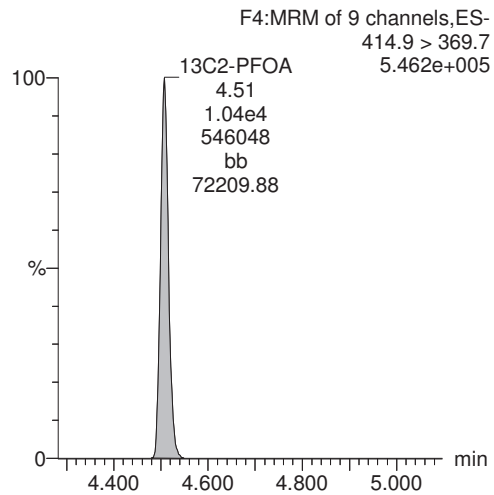
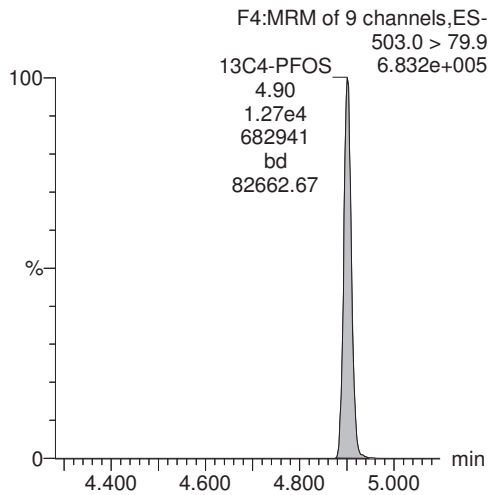
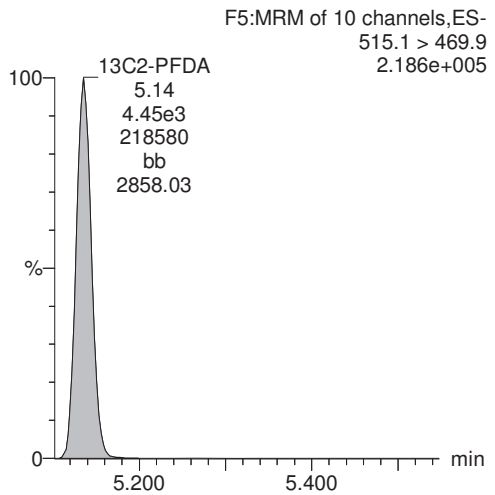


13C4-PFOS



13C2-PFDA



MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-45.qld

Last Altered: Wednesday, December 20, 2017 11:19:57 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:21:06 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-45, Date: 19-Dec-2017, Time: 18:13:23, ID: 1701928-10 CH-AT-1FB157-1217 0.25, Description: CH-AT-1FB157-1217

	#	Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.14e4		0.2650	3.24				
2	5	PFOA	413 > 368.7	5.35e1	9.18e3		0.2650	4.51	4.51	0.0583	0.276	
3	7	PFOS	499 >79.9		1.14e4		0.2650	4.90				
4	15	13C2-PFHxA	315 > 269.8	3.87e3	9.18e3	0.431	0.2650	3.62	3.58	4.21	36.9	97.7
5	16	13C2-PFDA	515.1 > 469.9	4.99e3	9.18e3	0.602	0.2650	5.14	5.14	5.44	34.1	90.2
6	18	13C2-PFOA	414.9 > 369.7	9.18e3	9.18e3	1.000	0.2650	4.41	4.51	10.0	37.7	100.0
7	19	13C4-PFOS	503.0 > 79.9	1.14e4	1.14e4	1.000	0.2650	4.81	4.90	28.7	108	100.0

MJT12/20/2017

Vista Analytical Laboratory

Rev'd: MM 12/20/17

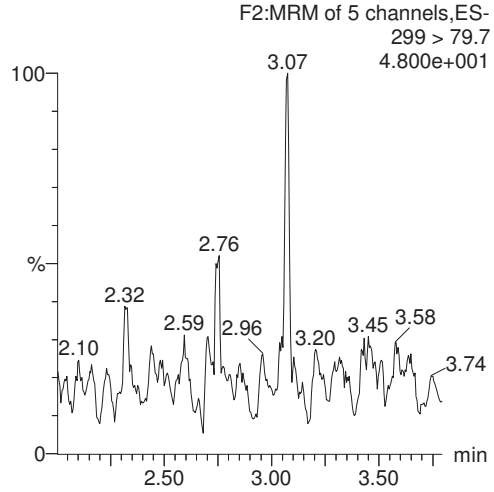
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-45.qld

Last Altered: Wednesday, December 20, 2017 11:19:57 Pacific Standard Time
Printed: Wednesday, December 20, 2017 11:21:06 Pacific Standard Time

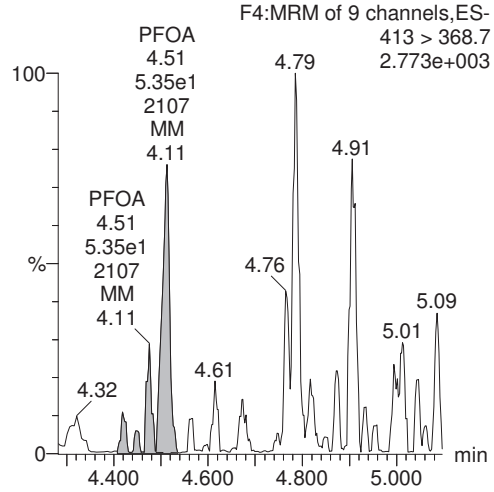
Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-45, Date: 19-Dec-2017, Time: 18:13:23, ID: 1701928-10 CH-AT-1FB157-1217 0.25, Description: CH-AT-1FB157-1217

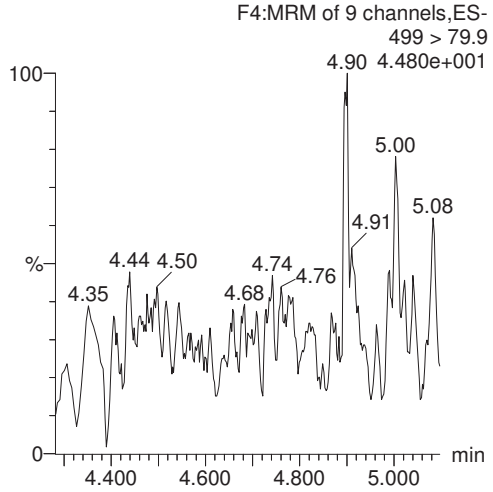
PFBS



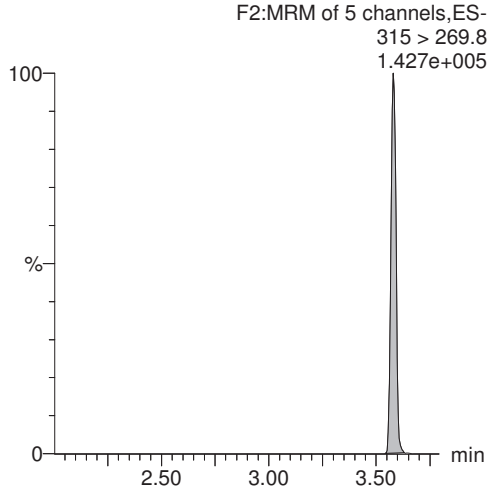
PFOA



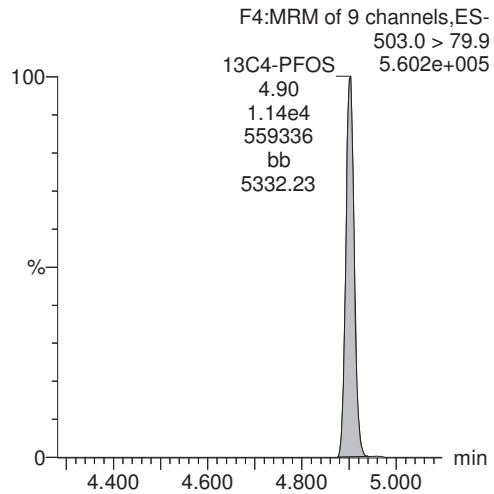
PFOS



13C2-PFHxA



13C4-PFOS



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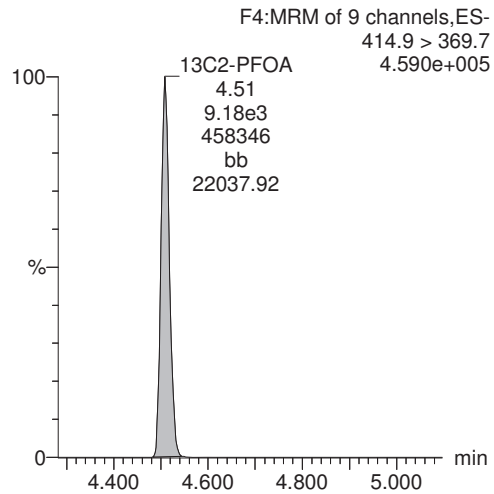

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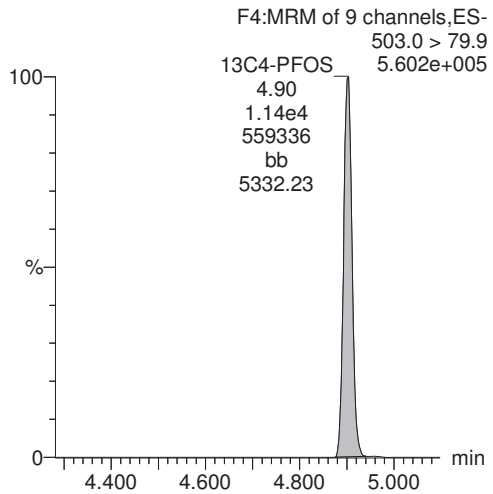

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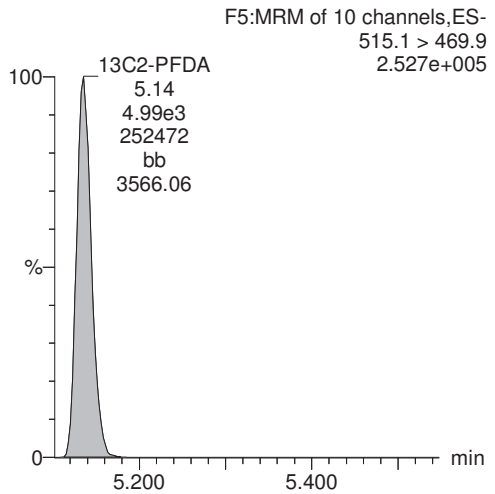

MJT12/20/2017

INJECTION INTERNAL STANDARD (IIS) AREAS,

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

IS Area

Ical

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	10	4.53	10727.48	10727.48	10723.6	100.04
2	IPA	171219G1-	Analyte	10				10723.6	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	10	4.52	1909.888	1909.888	10723.6	17.81
4	IPA	171219G1-	Analyte	10				10723.6	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	10	4.52	9970.507	9970.507	10723.6	92.98
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	10	4.52	9802.291	9802.291	10723.6	91.41
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	10	4.52	8580.966	8580.966	10723.6	80.02
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	10	4.52	10344.62	10344.62	10723.6	96.47
9	IPA	171219G1-	Analyte	10				10723.6	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	10	4.52	9745.998	9745.998	10723.6	90.88
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	10	4.52	9281.302	9281.302	10723.6	86.55
12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1-	Analyte	10	4.52	10267.48	10267.48	10723.6	95.75
13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1-	Analyte	10	4.52	10658.35	10658.35	10723.6	99.39
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1-	Analyte	10	4.52	8494.504	8494.504	10723.6	79.21
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1-	Analyte	10	4.52	10938.33	10938.33	10723.6	102.00
16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1-	Analyte	10	4.52	9343.375	9343.375	10723.6	87.13
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1-	Analyte	10	4.52	9989.028	9989.028	10723.6	93.15
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1-	Analyte	10	4.52	10785.61	10785.61	10723.6	100.58
19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1-	Analyte	10	4.52	10262.55	10262.55	10723.6	95.70
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1-	Analyte	10	4.52	10370.76	10370.76	10723.6	96.71
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1-	Analyte	10	4.52	9184.062	9184.062	10723.6	85.64
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1-	Analyte	10	4.52	9530.962	9530.962	10723.6	88.88
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1-	Analyte	10	4.52	9906.363	9906.363	10723.6	92.38
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1-	Analyte	10	4.52	9714.434	9714.434	10723.6	90.59
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1-	Analyte	10	4.52	10959.6	10959.6	10723.6	102.20
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1-	Analyte	10	4.52	10887.44	10887.44	10723.6	101.53
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1-	Analyte	10	4.52	10106.52	10106.52	10723.6	94.25

GM 12/20/17

28	IPA	171219G1- Analyte	10				10723.6	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1- Analyte	10	4.52	8942.65	8942.65	10723.6	83.39
30	IPA	171219G1- Analyte	10				10723.6	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1- Analyte	10	4.52	11064.76	11064.76	10723.6	103.18
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1- Analyte	10	4.52	10228.65	10228.65	10723.6	95.38
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1- Analyte	10	4.52	9785.288	9785.288	10723.6	91.25
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1- Analyte	10	4.52	10228.98	10228.98	10723.6	95.39
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1- Analyte	10	4.52	9178.224	9178.224	10723.6	85.59
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1- Analyte	10	4.52	8354.669	8354.669	10723.6	77.91
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1- Analyte	10	4.52	9918.738	9918.738	10723.6	92.49
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1- Analyte	10	4.52	9136.264	9136.264	10723.6	85.20
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1- Analyte	10	4.52	10408.76	10408.76	10723.6	97.06
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1- Analyte	10	4.52	8465.573	8465.573	10723.6	78.94
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1- Analyte	10	4.52	8851.765	8851.765	10723.6	82.54
42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1- Analyte	10	4.51	8302.015	8302.015	10723.6	77.42
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1- Analyte	10	4.51	10427.85	10427.85	10723.6	97.24
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1- Analyte	10	4.51	9176.721	9176.721	10723.6	85.58
45	IPA	171219G1- Analyte	10				10723.6	0.00
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1- Analyte	10	4.51	8522.467	8522.467	10723.6	79.47
47	IPA	171219G1- Analyte	10				10723.6	0.00
48	B7L0082-BS1 LFB 0.25	171219G1- Analyte		4.51	8349.188	8349.188	10723.6	77.86
49	B7L0082-BSD1 LFBD 0.25	171219G1- Analyte		4.51	8413.069	8413.069	10723.6	78.45
50	B7L0082-BLK1 LRB 0.25	171219G1- Analyte		4.51	9621.644	9621.644	10723.6	89.72
51	1701819-01 REEPDW013 0.25036	171219G1- Analyte		4.51	9475.526	9475.526	10723.6	88.36
52	1701819-02 REEPDW013FRB 0.26246	171219G1- Analyte		4.51	8916.981	8916.981	10723.6	83.15
53	IPA	171219G1- Analyte	10				10723.6	0.00
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1- Standard	10	4.51	13072.59	13072.59	10723.6	121.90
55	IPA	171219G1- Analyte	10				10723.6	0.00
56	1701819-03 REEPDW014 0.26559	171219G1- Analyte		4.51	9204.404	9204.404	10723.6	85.83
57	1701819-04 REEPDW014FRB 0.26615	171219G1- Analyte		4.51	8618.856	8618.856	10723.6	80.37
58	1701819-05 REEPDW015 0.25975	171219G1- Analyte		4.5	8662.856	8662.856	10723.6	80.78
59	1701819-06 REEPDW015FRB 0.24804	171219G1- Analyte		4.5	8844.557	8844.557	10723.6	82.48
60	1701819-07 REEPDW016 0.24999	171219G1- Analyte		4.5	8484.699	8484.699	10723.6	79.12
61	1701819-08 REEPDW016FRB 0.26007	171219G1- Analyte		4.5	9177.065	9177.065	10723.6	85.58

GM 12/20/17

62	1701819-09 REEPDW017 0.27853	171219G1-	Analyte		4.5	9802.03	9802.03	10723.6	91.41
63	1701819-10 REEPDW017FRB 0.26351	171219G1-	Analyte		4.5	9067.836	9067.836	10723.6	84.56
64	B7L0103-BS1 LFB 0.25	171219G1-	Analyte		4.5	8115.124	8115.124	10723.6	75.68
65	IPA	171219G1-	Analyte	10				10723.6	0.00
66	B7L0103-BLK1 LRB 0.25	171219G1-	Analyte		4.5	7985.159	7985.159	10723.6	74.46
67	B7L0103-MS1 LFSM 0.26861	171219G1-	Analyte		4.5	8973.063	8973.063	10723.6	83.68
68	B7L0103-MSD1 LFSMD 0.26227	171219G1-	Analyte		4.5	8601.716	8601.716	10723.6	80.21
69	1701834-01 REEPDW018 0.26178	171219G1-	Analyte		4.5	9283.894	9283.894	10723.6	86.57
70	1701834-02 REEPDW018FRB 0.25894	171219G1-	Analyte		4.5	9357.487	9357.487	10723.6	87.26
71	1701834-03 REEPDW019 0.26224	171219G1-	Analyte		4.5	7992.844	7992.844	10723.6	74.54
72	1701834-04 REEPDW019FRB 0.2555	171219G1-	Analyte		4.5	9086.308	9086.308	10723.6	84.73
73	1701834-05 REEPDW020 0.26836	171219G1-	Analyte		4.5	8802.315	8802.315	10723.6	82.08
74	1701834-06 REEPDW020FRB 0.25691	171219G1-	Analyte		4.5	9467.476	9467.476	10723.6	88.29
75	1701834-07 REEPDW501 0.25579	171219G1-	Analyte		4.5	8549.043	8549.043	10723.6	79.72
76	1701834-08 REEPDW021 0.25254	171219G1-	Analyte		4.5	7919.006	7919.006	10723.6	73.85
77	1701834-09 REEPDW021FRB 0.25976	171219G1-	Analyte		4.5	8883.885	8883.885	10723.6	82.84
78	IPA	171219G1-	Analyte	10				10723.6	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1-	Analyte	10	4.5	10228.45	10228.45	10723.6	95.38

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	28.7	4.92	12442	12442	12571.04	98.97
2	IPA	171219G1-	Analyte	28.7				12571.04	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	28.7	4.91	3010.869	3010.869	12571.04	23.95
4	IPA	171219G1-	Analyte	28.7				12571.04	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	28.7	4.91	11002.25	11002.25	12571.04	87.52
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	28.7	4.91	11266.99	11266.99	12571.04	89.63
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	28.7	4.91	10119.23	10119.23	12571.04	80.50
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	28.7	4.91	11271.12	11271.12	12571.04	89.66
9	IPA	171219G1-	Analyte	28.7				12571.04	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	28.7	4.91	11528.66	11528.66	12571.04	91.71
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	28.7	4.91	11131.14	11131.14	12571.04	88.55

GM 12/20/17

12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1- Analyte	28.7	4.91	11937.01	11937.01	12571.04	94.96
13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1- Analyte	28.7	4.91	12406.81	12406.81	12571.04	98.69
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1- Analyte	28.7	4.91	10177.65	10177.65	12571.04	80.96
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1- Analyte	28.7	4.91	12493.6	12493.6	12571.04	99.38
16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1- Analyte	28.7	4.91	11574.34	11574.34	12571.04	92.07
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1- Analyte	28.7	4.91	10588.16	10588.16	12571.04	84.23
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1- Analyte	28.7	4.91	11885.35	11885.35	12571.04	94.55
19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1- Analyte	28.7	4.91	13256.66	13256.66	12571.04	105.45
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1- Analyte	28.7	4.91	12354.53	12354.53	12571.04	98.28
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1- Analyte	28.7	4.91	11372.68	11372.68	12571.04	90.47
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1- Analyte	28.7	4.91	10764.3	10764.3	12571.04	85.63
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1- Analyte	28.7	4.91	11373.8	11373.8	12571.04	90.48
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1- Analyte	28.7	4.91	10964.29	10964.29	12571.04	87.22
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1- Analyte	28.7	4.91	11544.1	11544.1	12571.04	91.83
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1- Analyte	28.7	4.91	12525.03	12525.03	12571.04	99.63
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1- Analyte	28.7	4.91	12041.23	12041.23	12571.04	95.79
28	IPA	171219G1- Analyte	28.7				12571.04	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1- Analyte	28.7	4.91	10834.16	10834.16	12571.04	86.18
30	IPA	171219G1- Analyte	28.7				12571.04	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1- Analyte	28.7	4.91	12202.64	12202.64	12571.04	97.07
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1- Analyte	28.7	4.91	11094.1	11094.1	12571.04	88.25
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1- Analyte	28.7	4.91	11346.19	11346.19	12571.04	90.26
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1- Analyte	28.7	4.91	12205.27	12205.27	12571.04	97.09
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1- Analyte	28.7	4.91	8905.468	8905.468	12571.04	70.84
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1- Analyte	28.7	4.91	10181.85	10181.85	12571.04	80.99
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1- Analyte	28.7	4.91	11621.8	11621.8	12571.04	92.45
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1- Analyte	28.7	4.91	11819.32	11819.32	12571.04	94.02
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1- Analyte	28.7	4.91	10654.6	10654.6	12571.04	84.76
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1- Analyte	28.7	4.91	10348.41	10348.41	12571.04	82.32
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1- Analyte	28.7	4.91	11281.17	11281.17	12571.04	89.74
42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1- Analyte	28.7	4.9	10247.81	10247.81	12571.04	81.52
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1- Analyte	28.7	4.9	12737.27	12737.27	12571.04	101.32
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1- Analyte	28.7	4.9	11426.87	11426.87	12571.04	90.90
45	IPA	171219G1- Analyte	28.7				12571.04	0.00

GM 12/20/17

46	ST171219G1-3 PFC CS5 537 17L1426	171219G1- Analyte	28.7	4.9	10390.34	10390.34	12571.04	82.65
47	IPA	171219G1- Analyte	28.7	4.9	6.052	6.052	12571.04	0.05
48	B7L0082-BS1 LFB 0.25	171219G1- Analyte		4.9	9935.802	9935.802	12571.04	79.04
49	B7L0082-BSD1 LFBD 0.25	171219G1- Analyte		4.9	10889.8	10889.8	12571.04	86.63
50	B7L0082-BLK1 LRB 0.25	171219G1- Analyte		4.9	10574.73	10574.73	12571.04	84.12
51	1701819-01 REEPDW013 0.25036	171219G1- Analyte		4.9	11310.23	11310.23	12571.04	89.97
52	1701819-02 REEPDW013FRB 0.26246	171219G1- Analyte		4.9	10549.39	10549.39	12571.04	83.92
53	IPA	171219G1- Analyte	28.7	4.9	6.941	6.941	12571.04	0.06
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1- Standard	28.7	4.9	15289.98	15289.98	12571.04	121.63
55	IPA	171219G1- Analyte	28.7				12571.04	0.00
56	1701819-03 REEPDW014 0.26559	171219G1- Analyte		4.9	11879.63	11879.63	12571.04	94.50
57	1701819-04 REEPDW014FRB 0.26615	171219G1- Analyte		4.9	10222.7	10222.7	12571.04	81.32
58	1701819-05 REEPDW015 0.25975	171219G1- Analyte		4.9	10842.94	10842.94	12571.04	86.25
59	1701819-06 REEPDW015FRB 0.24804	171219G1- Analyte		4.9	9738.85	9738.85	12571.04	77.47
60	1701819-07 REEPDW016 0.24999	171219G1- Analyte		4.9	10330.88	10330.88	12571.04	82.18
61	1701819-08 REEPDW016FRB 0.26007	171219G1- Analyte		4.89	12063.24	12063.24	12571.04	95.96
62	1701819-09 REEPDW017 0.27853	171219G1- Analyte		4.89	11766.52	11766.52	12571.04	93.60
63	1701819-10 REEPDW017FRB 0.26351	171219G1- Analyte		4.89	11822.31	11822.31	12571.04	94.04
64	B7L0103-BS1 LFB 0.25	171219G1- Analyte		4.89	10311.43	10311.43	12571.04	82.03
65	IPA	171219G1- Analyte	28.7				12571.04	0.00
66	B7L0103-BLK1 LRB 0.25	171219G1- Analyte		4.89	9464.674	9464.674	12571.04	75.29
67	B7L0103-MS1 LFSM 0.26861	171219G1- Analyte		4.89	11183.56	11183.56	12571.04	88.96
68	B7L0103-MSD1 LFSMD 0.26227	171219G1- Analyte		4.89	11705.12	11705.12	12571.04	93.11
69	1701834-01 REEPDW018 0.26178	171219G1- Analyte		4.89	11440.11	11440.11	12571.04	91.00
70	1701834-02 REEPDW018FRB 0.25894	171219G1- Analyte		4.89	11103.11	11103.11	12571.04	88.32
71	1701834-03 REEPDW019 0.26224	171219G1- Analyte		4.89	9956.517	9956.517	12571.04	79.20
72	1701834-04 REEPDW019FRB 0.2555	171219G1- Analyte		4.89	11226.6	11226.6	12571.04	89.31
73	1701834-05 REEPDW020 0.26836	171219G1- Analyte		4.89	11567.87	11567.87	12571.04	92.02
74	1701834-06 REEPDW020FRB 0.25691	171219G1- Analyte		4.89	11025.67	11025.67	12571.04	87.71
75	1701834-07 REEPDW501 0.25579	171219G1- Analyte		4.89	11342.67	11342.67	12571.04	90.23
76	1701834-08 REEPDW021 0.25254	171219G1- Analyte		4.89	10798.36	10798.36	12571.04	85.90
77	1701834-09 REEPDW021FRB 0.25976	171219G1- Analyte		4.89	11396.26	11396.26	12571.04	90.65
78	IPA	171219G1- Analyte	28.7				12571.04	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1- Analyte	28.7	4.89	12536.63	12536.63	12571.04	99.73

GM 12/20/17

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	40	5.27	6091.539	6091.539	6390.7	95.32
2	IPA	171219G1-	Analyte	40				6390.7	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	40	5.27	1326.996	1326.996	6390.7	20.76
4	IPA	171219G1-	Analyte	40				6390.7	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	40	5.26	5668.417	5668.417	6390.7	88.70
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	40	5.26	5390.422	5390.422	6390.7	84.35
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	40	5.26	5179.224	5179.224	6390.7	81.04
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	40	5.26	5844.795	5844.795	6390.7	91.46
9	IPA	171219G1-	Analyte	40				6390.7	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	40	5.26	5760.235	5760.235	6390.7	90.13
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	40	5.26	5289.312	5289.312	6390.7	82.77
12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1-	Analyte	40	5.26	5892.435	5892.435	6390.7	92.20
13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1-	Analyte	40	5.26	6396.551	6396.551	6390.7	100.09
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1-	Analyte	40	5.26	5141.328	5141.328	6390.7	80.45
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1-	Analyte	40	5.26	6233.563	6233.563	6390.7	97.54
16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1-	Analyte	40	5.27	6174.21	6174.21	6390.7	96.61
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1-	Analyte	40	5.27	5722.987	5722.987	6390.7	89.55
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1-	Analyte	40	5.26	6168.518	6168.518	6390.7	96.52
19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1-	Analyte	40	5.26	6239.982	6239.982	6390.7	97.64
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1-	Analyte	40	5.26	5644.138	5644.138	6390.7	88.32
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1-	Analyte	40	5.26	5172.684	5172.684	6390.7	80.94
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1-	Analyte	40	5.26	5885.186	5885.186	6390.7	92.09
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1-	Analyte	40	5.26	6152.387	6152.387	6390.7	96.27
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1-	Analyte	40	5.26	5926.129	5926.129	6390.7	92.73
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1-	Analyte	40	5.26	6385.811	6385.811	6390.7	99.92
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1-	Analyte	40	5.26	6099.61	6099.61	6390.7	95.45
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1-	Analyte	40	5.26	6075.676	6075.676	6390.7	95.07
28	IPA	171219G1-	Analyte	40				6390.7	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	40	5.26	5581.389	5581.389	6390.7	87.34

GM 12/20/17

30	IPA	171219G1- Analyte	40				6390.7	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1- Analyte	40	5.26	6412.635	6412.635	6390.7	100.34
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1- Analyte	40	5.26	6055.259	6055.259	6390.7	94.75
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1- Analyte	40	5.26	5332.555	5332.555	6390.7	83.44
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1- Analyte	40	5.26	5656.514	5656.514	6390.7	88.51
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1- Analyte	40	5.26	4024.289	4024.289	6390.7	62.97
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1- Analyte	40	5.26	5078.587	5078.587	6390.7	79.47
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1- Analyte	40	5.26	4504.261	4504.261	6390.7	70.48
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1- Analyte	40	5.26	5659.552	5659.552	6390.7	88.56
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1- Analyte	40	5.26	4434.502	4434.502	6390.7	69.39
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1- Analyte	40	5.26	4963.986	4963.986	6390.7	77.68
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1- Analyte	40	5.26	5493.13	5493.13	6390.7	85.96
42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1- Analyte	40	5.25	5192.051	5192.051	6390.7	81.24
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1- Analyte	40	5.25	4421.068	4421.068	6390.7	69.18
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1- Analyte	40	5.25	6177.951	6177.951	6390.7	96.67
45	IPA	171219G1- Analyte	40				6390.7	0.00
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1- Analyte	40	5.25	5203.936	5203.936	6390.7	81.43
47	IPA	171219G1- Analyte	40				6390.7	0.00
48	B7L0082-BS1 LFB 0.25	171219G1- Analyte		5.25	4829.5	4829.5	6390.7	75.57
49	B7L0082-BSD1 LFBD 0.25	171219G1- Analyte		5.25	4926.895	4926.895	6390.7	77.09
50	B7L0082-BLK1 LRB 0.25	171219G1- Analyte		5.25	5008.648	5008.648	6390.7	78.37
51	1701819-01 REEPDW013 0.25036	171219G1- Analyte		5.25	5450.35	5450.35	6390.7	85.29
52	1701819-02 REEPDW013FRB 0.26246	171219G1- Analyte		5.25	4830.95	4830.95	6390.7	75.59
53	IPA	171219G1- Analyte	40				6390.7	0.00
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1- Standard	40	5.25	7181.541	7181.541	6390.7	112.37
55	IPA	171219G1- Analyte	40				6390.7	0.00
56	1701819-03 REEPDW014 0.26559	171219G1- Analyte		5.25	6590.326	6590.326	6390.7	103.12
57	1701819-04 REEPDW014FRB 0.26615	171219G1- Analyte		5.25	4945.636	4945.636	6390.7	77.39
58	1701819-05 REEPDW015 0.25975	171219G1- Analyte		5.25	4828.903	4828.903	6390.7	75.56
59	1701819-06 REEPDW015FRB 0.24804	171219G1- Analyte		5.25	4503.031	4503.031	6390.7	70.46
60	1701819-07 REEPDW016 0.24999	171219G1- Analyte		5.25	5191.741	5191.741	6390.7	81.24
61	1701819-08 REEPDW016FRB 0.26007	171219G1- Analyte		5.25	5558.855	5558.855	6390.7	86.98
62	1701819-09 REEPDW017 0.27853	171219G1- Analyte		5.25	6174.537	6174.537	6390.7	96.62
63	1701819-10 REEPDW017FRB 0.26351	171219G1- Analyte		5.25	5310.128	5310.128	6390.7	83.09

GM 12/20/17

64	B7L0103-BS1 LFB 0.25	171219G1-	Analyte		5.25	4725.604	4725.604	6390.7	73.95
65	IPA	171219G1-	Analyte	40				6390.7	0.00
66	B7L0103-BLK1 LRB 0.25	171219G1-	Analyte		5.25	5555.885	5555.885	6390.7	86.94
67	B7L0103-MS1 LFSM 0.26861	171219G1-	Analyte		5.25	5729.632	5729.632	6390.7	89.66
68	B7L0103-MSD1 LFSMD 0.26227	171219G1-	Analyte		5.25	5342.75	5342.75	6390.7	83.60
69	1701834-01 REEPDW018 0.26178	171219G1-	Analyte		5.25	5620.978	5620.978	6390.7	87.96
70	1701834-02 REEPDW018FRB 0.25894	171219G1-	Analyte		5.25	5565.362	5565.362	6390.7	87.09
71	1701834-03 REEPDW019 0.26224	171219G1-	Analyte		5.25	5602.749	5602.749	6390.7	87.67
72	1701834-04 REEPDW019FRB 0.2555	171219G1-	Analyte		5.25	5864.031	5864.031	6390.7	91.76
73	1701834-05 REEPDW020 0.26836	171219G1-	Analyte		5.25	5672.595	5672.595	6390.7	88.76
74	1701834-06 REEPDW020FRB 0.25691	171219G1-	Analyte		5.25	5429.727	5429.727	6390.7	84.96
75	1701834-07 REEPDW501 0.25579	171219G1-	Analyte		5.25	5250.799	5250.799	6390.7	82.16
76	1701834-08 REEPDW021 0.25254	171219G1-	Analyte		5.25	5494.509	5494.509	6390.7	85.98
77	1701834-09 REEPDW021FRB 0.25976	171219G1-	Analyte		5.25	5155.271	5155.271	6390.7	80.67
78	IPA	171219G1-	Analyte	40				6390.7	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1-	Analyte	40	5.25	6227.027	6227.027	6390.7	97.44

Ccal

Compound 18: 13C2-PFOA ST171219G-1 PFC CS-1 537 17L1420

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	10	4.53	10727.48	10727.48	10727.48	100.00
2	IPA	171219G1-	Analyte	10				10727.48	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	10	4.52	1909.888	1909.888	10727.48	17.80
4	IPA	171219G1-	Analyte	10				10727.48	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	10	4.52	9970.507	9970.507	10727.48	92.94
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	10	4.52	9802.291	9802.291	10727.48	91.38
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	10	4.52	8580.966	8580.966	10727.48	79.99
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	10	4.52	10344.62	10344.62	10727.48	96.43
9	IPA	171219G1-	Analyte	10				10727.48	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	10	4.52	9745.998	9745.998	10727.48	90.85
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	10	4.52	9281.302	9281.302	10727.48	86.52
12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1-	Analyte	10	4.52	10267.48	10267.48	10727.48	95.71

GM 12/20/17

13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1-	Analyte	10	4.52	10658.35	10658.35	10727.48	99.36
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1-	Analyte	10	4.52	8494.504	8494.504	10727.48	79.18
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1-	Analyte	10	4.52	10938.33	10938.33	10727.48	101.97
16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1-	Analyte	10	4.52	9343.375	9343.375	10727.48	87.10
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1-	Analyte	10	4.52	9989.028	9989.028	10727.48	93.12
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1-	Analyte	10	4.52	10785.61	10785.61	10727.48	100.54
19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1-	Analyte	10	4.52	10262.55	10262.55	10727.48	95.67
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1-	Analyte	10	4.52	10370.76	10370.76	10727.48	96.67
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1-	Analyte	10	4.52	9184.062	9184.062	10727.48	85.61
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1-	Analyte	10	4.52	9530.962	9530.962	10727.48	88.85
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1-	Analyte	10	4.52	9906.363	9906.363	10727.48	92.35
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1-	Analyte	10	4.52	9714.434	9714.434	10727.48	90.56
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1-	Analyte	10	4.52	10959.6	10959.6	10727.48	102.16
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1-	Analyte	10	4.52	10887.44	10887.44	10727.48	101.49
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1-	Analyte	10	4.52	10106.52	10106.52	10727.48	94.21
28	IPA	171219G1-	Analyte	10				10727.48	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	10	4.52	8942.65	8942.65	10727.48	83.36

ST171219G1-2 PFC CS3 537 17L1424

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	10	4.52	8942.65	8942.65	8942.65	100.00
30	IPA	171219G1-	Analyte	10				8942.65	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1-	Analyte	10	4.52	11064.76	11064.76	8942.65	123.73
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1-	Analyte	10	4.52	10228.65	10228.65	8942.65	114.38
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1-	Analyte	10	4.52	9785.288	9785.288	8942.65	109.42
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1-	Analyte	10	4.52	10228.98	10228.98	8942.65	114.38
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1-	Analyte	10	4.52	9178.224	9178.224	8942.65	102.63
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1-	Analyte	10	4.52	8354.669	8354.669	8942.65	93.42
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1-	Analyte	10	4.52	9918.738	9918.738	8942.65	110.91
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1-	Analyte	10	4.52	9136.264	9136.264	8942.65	102.17
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1-	Analyte	10	4.52	10408.76	10408.76	8942.65	116.39
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1-	Analyte	10	4.52	8465.573	8465.573	8942.65	94.67
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1-	Analyte	10	4.52	8851.765	8851.765	8942.65	98.98

GM 12/20/17

42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1-	Analyte	10	4.51	8302.015	8302.015	8942.65	92.84
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1-	Analyte	10	4.51	10427.85	10427.85	8942.65	116.61
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1-	Analyte	10	4.51	9176.721	9176.721	8942.65	102.62
45	IPA	171219G1-	Analyte	10				8942.65	0.00
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	10	4.51	8522.467	8522.467	8942.65	95.30

ST171219G1-3 PFC CS5 537 17L1426

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	10	4.51	8522.467	8522.467	8522.467	100.00
47	IPA	171219G1-	Analyte	10				8522.467	0.00
48	B7L0082-BS1 LFB 0.25	171219G1-	Analyte		4.51	8349.188	8349.188	8522.467	97.97
49	B7L0082-BSD1 LFBD 0.25	171219G1-	Analyte		4.51	8413.069	8413.069	8522.467	98.72
50	B7L0082-BLK1 LRB 0.25	171219G1-	Analyte		4.51	9621.644	9621.644	8522.467	112.90
51	1701819-01 REEPDW013 0.25036	171219G1-	Analyte		4.51	9475.526	9475.526	8522.467	111.18
52	1701819-02 REEPDW013FRB 0.26246	171219G1-	Analyte		4.51	8916.981	8916.981	8522.467	104.63
53	IPA	171219G1-	Analyte	10				8522.467	0.00
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Analyte	10	4.51	13072.59	13072.59	8522.467	153.39

ST171219G-4 PFC CS-1 537 17L1420

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Analyte	10	4.51	13072.59	13072.59	13072.59	100.00
55	IPA	171219G1-	Analyte	10				13072.59	0.00
56	1701819-03 REEPDW014 0.26559	171219G1-	Analyte		4.51	9204.404	9204.404	13072.59	70.41
57	1701819-04 REEPDW014FRB 0.26615	171219G1-	Analyte		4.51	8618.856	8618.856	13072.59	65.93
58	1701819-05 REEPDW015 0.25975	171219G1-	Analyte		4.5	8662.856	8662.856	13072.59	66.27
59	1701819-06 REEPDW015FRB 0.24804	171219G1-	Analyte		4.5	8844.557	8844.557	13072.59	67.66
60	1701819-07 REEPDW016 0.24999	171219G1-	Analyte		4.5	8484.699	8484.699	13072.59	64.90
61	1701819-08 REEPDW016FRB 0.26007	171219G1-	Analyte		4.5	9177.065	9177.065	13072.59	70.20
62	1701819-09 REEPDW017 0.27853	171219G1-	Analyte		4.5	9802.03	9802.03	13072.59	74.98
63	1701819-10 REEPDW017FRB 0.26351	171219G1-	Analyte		4.5	9067.836	9067.836	13072.59	69.37
64	B7L0103-BS1 LFB 0.25	171219G1-	Analyte		4.5	8115.124	8115.124	13072.59	62.08
65	IPA	171219G1-	Analyte	10				13072.59	0.00

GM 12/20/17

66	B7L0103-BLK1 LRB 0.25	171219G1-	Analyte		4.5	7985.159	7985.159	13072.59	61.08
67	B7L0103-MS1 LFSM 0.26861	171219G1-	Analyte		4.5	8973.063	8973.063	13072.59	68.64
68	B7L0103-MSD1 LFSMD 0.26227	171219G1-	Analyte		4.5	8601.716	8601.716	13072.59	65.80
69	1701834-01 REEPDW018 0.26178	171219G1-	Analyte		4.5	9283.894	9283.894	13072.59	71.02
70	1701834-02 REEPDW018FRB 0.25894	171219G1-	Analyte		4.5	9357.487	9357.487	13072.59	71.58
71	1701834-03 REEPDW019 0.26224	171219G1-	Analyte		4.5	7992.844	7992.844	13072.59	61.14
72	1701834-04 REEPDW019FRB 0.2555	171219G1-	Analyte		4.5	9086.308	9086.308	13072.59	69.51
73	1701834-05 REEPDW020 0.26836	171219G1-	Analyte		4.5	8802.315	8802.315	13072.59	67.33
74	1701834-06 REEPDW020FRB 0.25691	171219G1-	Analyte		4.5	9467.476	9467.476	13072.59	72.42
75	1701834-07 REEPDW501 0.25579	171219G1-	Analyte		4.5	8549.043	8549.043	13072.59	65.40
76	1701834-08 REEPDW021 0.25254	171219G1-	Analyte		4.5	7919.006	7919.006	13072.59	60.58
77	1701834-09 REEPDW021FRB 0.25976	171219G1-	Analyte		4.5	8883.885	8883.885	13072.59	67.96
78	IPA	171219G1-	Analyte	10				13072.59	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1-	Analyte	10	4.5	10228.45	10228.45	13072.59	78.24

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	28.7	4.92	12442	12442	12571.04	98.97
2	IPA	171219G1-	Analyte	28.7				12571.04	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	28.7	4.91	3010.869	3010.869	12571.04	23.95
4	IPA	171219G1-	Analyte	28.7				12571.04	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	28.7	4.91	11002.25	11002.25	12571.04	87.52
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	28.7	4.91	11266.99	11266.99	12571.04	89.63
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	28.7	4.91	10119.23	10119.23	12571.04	80.50
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	28.7	4.91	11271.12	11271.12	12571.04	89.66
9	IPA	171219G1-	Analyte	28.7				12571.04	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	28.7	4.91	11528.66	11528.66	12571.04	91.71
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	28.7	4.91	11131.14	11131.14	12571.04	88.55
12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1-	Analyte	28.7	4.91	11937.01	11937.01	12571.04	94.96
13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1-	Analyte	28.7	4.91	12406.81	12406.81	12571.04	98.69
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1-	Analyte	28.7	4.91	10177.65	10177.65	12571.04	80.96
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1-	Analyte	28.7	4.91	12493.6	12493.6	12571.04	99.38

GM 12/20/17

16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1-	Analyte	28.7	4.91	11574.34	11574.34	12571.04	92.07
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1-	Analyte	28.7	4.91	10588.16	10588.16	12571.04	84.23
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1-	Analyte	28.7	4.91	11885.35	11885.35	12571.04	94.55
19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1-	Analyte	28.7	4.91	13256.66	13256.66	12571.04	105.45
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1-	Analyte	28.7	4.91	12354.53	12354.53	12571.04	98.28
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1-	Analyte	28.7	4.91	11372.68	11372.68	12571.04	90.47
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1-	Analyte	28.7	4.91	10764.3	10764.3	12571.04	85.63
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1-	Analyte	28.7	4.91	11373.8	11373.8	12571.04	90.48
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1-	Analyte	28.7	4.91	10964.29	10964.29	12571.04	87.22
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1-	Analyte	28.7	4.91	11544.1	11544.1	12571.04	91.83
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1-	Analyte	28.7	4.91	12525.03	12525.03	12571.04	99.63
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1-	Analyte	28.7	4.91	12041.23	12041.23	12571.04	95.79
28	IPA	171219G1-	Analyte	28.7				12571.04	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	28.7	4.91	10834.16	10834.16	12571.04	86.18

ST171219G1-2 PFC CS3 537 17L1424

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	28.7	4.91	10834.16	10834.16	10834.16	100.00
30	IPA	171219G1-	Analyte	28.7				10834.16	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1-	Analyte	28.7	4.91	12202.64	12202.64	10834.16	112.63
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1-	Analyte	28.7	4.91	11094.1	11094.1	10834.16	102.40
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1-	Analyte	28.7	4.91	11346.19	11346.19	10834.16	104.73
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1-	Analyte	28.7	4.91	12205.27	12205.27	10834.16	112.66
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1-	Analyte	28.7	4.91	8905.468	8905.468	10834.16	82.20
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1-	Analyte	28.7	4.91	10181.85	10181.85	10834.16	93.98
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1-	Analyte	28.7	4.91	11621.8	11621.8	10834.16	107.27
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1-	Analyte	28.7	4.91	11819.32	11819.32	10834.16	109.09
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1-	Analyte	28.7	4.91	10654.6	10654.6	10834.16	98.34
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1-	Analyte	28.7	4.91	10348.41	10348.41	10834.16	95.52
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1-	Analyte	28.7	4.91	11281.17	11281.17	10834.16	104.13
42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1-	Analyte	28.7	4.9	10247.81	10247.81	10834.16	94.59
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1-	Analyte	28.7	4.9	12737.27	12737.27	10834.16	117.57
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1-	Analyte	28.7	4.9	11426.87	11426.87	10834.16	105.47

GM 12/20/17

45	IPA	171219G1-	Analyte	28.7				10834.16	0.00
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	28.7	4.9	10390.34	10390.34	10834.16	95.90

ST171219G1-3 PFC CS5 537 17L1426

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	28.7	4.9	10390.34	10390.34	10834.16	95.90
47	IPA	171219G1-	Analyte	28.7	4.9	6.052	6.052	10834.16	0.06
48	B7L0082-BS1 LFB 0.25	171219G1-	Analyte		4.9	9935.802	9935.802	10834.16	91.71
49	B7L0082-BSD1 LFBD 0.25	171219G1-	Analyte		4.9	10889.8	10889.8	10834.16	100.51
50	B7L0082-BLK1 LRB 0.25	171219G1-	Analyte		4.9	10574.73	10574.73	10834.16	97.61
51	1701819-01 REEPDW013 0.25036	171219G1-	Analyte		4.9	11310.23	11310.23	10834.16	104.39
52	1701819-02 REEPDW013FRB 0.26246	171219G1-	Analyte		4.9	10549.39	10549.39	10834.16	97.37
53	IPA	171219G1-	Analyte	28.7	4.9	6.941	6.941	10834.16	0.06
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Standard	28.7	4.9	15289.98	15289.98	10834.16	141.13

ST171219G-4 PFC CS-1 537 17L1420

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Standard	28.7	4.9	15289.98	15289.98	15289.98	100.00
55	IPA	171219G1-	Analyte	28.7				15289.98	0.00
56	1701819-03 REEPDW014 0.26559	171219G1-	Analyte		4.9	11879.63	11879.63	15289.98	77.70
57	1701819-04 REEPDW014FRB 0.26615	171219G1-	Analyte		4.9	10222.7	10222.7	15289.98	66.86
58	1701819-05 REEPDW015 0.25975	171219G1-	Analyte		4.9	10842.94	10842.94	15289.98	70.92
59	1701819-06 REEPDW015FRB 0.24804	171219G1-	Analyte		4.9	9738.85	9738.85	15289.98	63.69
60	1701819-07 REEPDW016 0.24999	171219G1-	Analyte		4.9	10330.88	10330.88	15289.98	67.57
61	1701819-08 REEPDW016FRB 0.26007	171219G1-	Analyte		4.89	12063.24	12063.24	15289.98	78.90
62	1701819-09 REEPDW017 0.27853	171219G1-	Analyte		4.89	11766.52	11766.52	15289.98	76.96
63	1701819-10 REEPDW017FRB 0.26351	171219G1-	Analyte		4.89	11822.31	11822.31	15289.98	77.32
64	B7L0103-BS1 LFB 0.25	171219G1-	Analyte		4.89	10311.43	10311.43	15289.98	67.44
65	IPA	171219G1-	Analyte	28.7				15289.98	0.00
66	B7L0103-BLK1 LRB 0.25	171219G1-	Analyte		4.89	9464.674	9464.674	15289.98	61.90
67	B7L0103-MS1 LFSM 0.26861	171219G1-	Analyte		4.89	11183.56	11183.56	15289.98	73.14
68	B7L0103-MSD1 LFSMD 0.26227	171219G1-	Analyte		4.89	11705.12	11705.12	15289.98	76.55

GM 12/20/17

69	1701834-01 REEPDW018 0.26178	171219G1-	Analyte		4.89	11440.11	11440.11	15289.98	74.82
70	1701834-02 REEPDW018FRB 0.25894	171219G1-	Analyte		4.89	11103.11	11103.11	15289.98	72.62
71	1701834-03 REEPDW019 0.26224	171219G1-	Analyte		4.89	9956.517	9956.517	15289.98	65.12
72	1701834-04 REEPDW019FRB 0.2555	171219G1-	Analyte		4.89	11226.6	11226.6	15289.98	73.42
73	1701834-05 REEPDW020 0.26836	171219G1-	Analyte		4.89	11567.87	11567.87	15289.98	75.66
74	1701834-06 REEPDW020FRB 0.25691	171219G1-	Analyte		4.89	11025.67	11025.67	15289.98	72.11
75	1701834-07 REEPDW501 0.25579	171219G1-	Analyte		4.89	11342.67	11342.67	15289.98	74.18
76	1701834-08 REEPDW021 0.25254	171219G1-	Analyte		4.89	10798.36	10798.36	15289.98	70.62
77	1701834-09 REEPDW021FRB 0.25976	171219G1-	Analyte		4.89	11396.26	11396.26	15289.98	74.53
78	IPA	171219G1-	Analyte	28.7				15289.98	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1-	Analyte	28.7	4.89	12536.63	12536.63	15289.98	81.99

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
1	ST171219G-1 PFC CS-1 537 17L1420	171219G1-	Analyte	40	5.27	6091.539	6091.539	6091.539	100.00
2	IPA	171219G1-	Analyte	40				6091.539	0.00
3	1701818-11@5X REEPDW500 0.26268	171219G1-	Analyte	40	5.27	1326.996	1326.996	6091.539	21.78
4	IPA	171219G1-	Analyte	40				6091.539	0.00
5	B7L0113-BS1 LFB 0.25	171219G1-	Analyte	40	5.26	5668.417	5668.417	6091.539	93.05
6	B7L0113-BSD1 LFBD 0.25	171219G1-	Analyte	40	5.26	5390.422	5390.422	6091.539	88.49
7	B7L0122-BS1 LFB 0.25	171219G1-	Analyte	40	5.26	5179.224	5179.224	6091.539	85.02
8	B7L0122-BSD1 LFBD 0.25	171219G1-	Analyte	40	5.26	5844.795	5844.795	6091.539	95.95
9	IPA	171219G1-	Analyte	40				6091.539	0.00
10	B7L0113-BLK1 LRB 0.25	171219G1-	Analyte	40	5.26	5760.235	5760.235	6091.539	94.56
11	B7L0122-BLK1 LRB 0.25	171219G1-	Analyte	40	5.26	5289.312	5289.312	6091.539	86.83
12	1701908-01 CH-AT-1RW140-1217 0.25432	171219G1-	Analyte	40	5.26	5892.435	5892.435	6091.539	96.73
13	1701908-02 CH-AT-1FB140-1217 0.2486	171219G1-	Analyte	40	5.26	6396.551	6396.551	6091.539	105.01
14	1701908-03 CH-AT-1RW141-1217 0.2485	171219G1-	Analyte	40	5.26	5141.328	5141.328	6091.539	84.40
15	1701908-04 CH-AT-1FB141-1217 0.25001	171219G1-	Analyte	40	5.26	6233.563	6233.563	6091.539	102.33
16	1701908-05 CH-AT-1RW142-1217 0.24021	171219G1-	Analyte	40	5.27	6174.21	6174.21	6091.539	101.36
17	1701908-06 CH-AT-1FB142-1217 0.24538	171219G1-	Analyte	40	5.27	5722.987	5722.987	6091.539	93.95
18	1701908-07 CH-AT-1RW143-1217 0.23689	171219G1-	Analyte	40	5.26	6168.518	6168.518	6091.539	101.26

GM 12/20/17

19	1701908-08 CH-AT-1FB143-1217 0.24193	171219G1-	Analyte	40	5.26	6239.982	6239.982	6091.539	102.44
20	1701908-09 CH-AT-1RW144-1217 0.24851	171219G1-	Analyte	40	5.26	5644.138	5644.138	6091.539	92.66
21	1701908-10 CH-AT-1FB144-1217 0.25707	171219G1-	Analyte	40	5.26	5172.684	5172.684	6091.539	84.92
22	1701908-11 CH-AT-1RW145-1217 0.24027	171219G1-	Analyte	40	5.26	5885.186	5885.186	6091.539	96.61
23	1701908-12 CH-AT-1FB145-1217 0.25132	171219G1-	Analyte	40	5.26	6152.387	6152.387	6091.539	101.00
24	1701908-13 CH-AT-1RW146-1217 0.2307	171219G1-	Analyte	40	5.26	5926.129	5926.129	6091.539	97.28
25	1701908-14 CH-AT-1FB146-1217 0.25631	171219G1-	Analyte	40	5.26	6385.811	6385.811	6091.539	104.83
26	1701908-15 CH-AT-1RW147-1217 0.24663	171219G1-	Analyte	40	5.26	6099.61	6099.61	6091.539	100.13
27	1701908-16 CH-AT-1FB147-1217 0.26156	171219G1-	Analyte	40	5.26	6075.676	6075.676	6091.539	99.74
28	IPA	171219G1-	Analyte	40				6091.539	0.00
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	40	5.26	5581.389	5581.389	6091.539	91.63

ST171219G1-2 PFC CS3 537 17L1424

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
29	ST171219G1-2 PFC CS3 537 17L1424	171219G1-	Analyte	40	5.26	5581.389	5581.389	5581.389	100.00
30	IPA	171219G1-	Analyte	40				5581.389	0.00
31	1701908-17 CH-AT-1RW148-1217 0.25489	171219G1-	Analyte	40	5.26	6412.635	6412.635	5581.389	114.89
32	1701908-18 CH-AT-1FB148-1217 0.25113	171219G1-	Analyte	40	5.26	6055.259	6055.259	5581.389	108.49
33	1701908-19 CH-AT-1RW149-1217 0.23111	171219G1-	Analyte	40	5.26	5332.555	5332.555	5581.389	95.54
34	1701908-20 CH-AT-1FB149-1217 0.25162	171219G1-	Analyte	40	5.26	5656.514	5656.514	5581.389	101.35
35	1701928-01 CH-AT-1RW153-1217 0.25	171219G1-	Analyte	40	5.26	4024.289	4024.289	5581.389	72.10
36	1701928-02 CH-AT-1FB153-1217 0.25	171219G1-	Analyte	40	5.26	5078.587	5078.587	5581.389	90.99
37	1701928-03 CH-AT-1RW154-1217 0.25	171219G1-	Analyte	40	5.26	4504.261	4504.261	5581.389	80.70
38	1701928-04 CH-AT-1FB154-1217 0.25	171219G1-	Analyte	40	5.26	5659.552	5659.552	5581.389	101.40
39	1701928-05 CH-AT-1RW155-1217 0.25	171219G1-	Analyte	40	5.26	4434.502	4434.502	5581.389	79.45
40	1701928-06 CH-AT-1FB155-1217 0.25	171219G1-	Analyte	40	5.26	4963.986	4963.986	5581.389	88.94
41	1701928-07 CH-AT-1RW156-1217 0.25	171219G1-	Analyte	40	5.26	5493.13	5493.13	5581.389	98.42
42	1701928-08 CH-AT-1FB156-1217 0.25	171219G1-	Analyte	40	5.25	5192.051	5192.051	5581.389	93.02
43	1701928-09 CH-AT-1RW157-1217 0.25	171219G1-	Analyte	40	5.25	4421.068	4421.068	5581.389	79.21
44	1701928-10 CH-AT-1FB157-1217 0.25	171219G1-	Analyte	40	5.25	6177.951	6177.951	5581.389	110.69
45	IPA	171219G1-	Analyte	40				5581.389	0.00
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	40	5.25	5203.936	5203.936	5581.389	93.24

GM 12/20/17

ST171219G1-3 PFC CS5 537 17L1426

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
46	ST171219G1-3 PFC CS5 537 17L1426	171219G1-	Analyte	40	5.25	5203.936	5203.936	5203.936	100.00
47	IPA	171219G1-	Analyte	40				5203.936	0.00
48	B7L0082-BS1 LFB 0.25	171219G1-	Analyte		5.25	4829.5	4829.5	5203.936	92.80
49	B7L0082-BSD1 LFBD 0.25	171219G1-	Analyte		5.25	4926.895	4926.895	5203.936	94.68
50	B7L0082-BLK1 LRB 0.25	171219G1-	Analyte		5.25	5008.648	5008.648	5203.936	96.25
51	1701819-01 REEPDW013 0.25036	171219G1-	Analyte		5.25	5450.35	5450.35	5203.936	104.74
52	1701819-02 REEPDW013FRB 0.26246	171219G1-	Analyte		5.25	4830.95	4830.95	5203.936	92.83
53	IPA	171219G1-	Analyte	40				5203.936	0.00
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Standard	40	5.25	7181.541	7181.541	5203.936	138.00

ST171219G-4 PFC CS-1 537 17L1420

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal	Area %
54	ST171219G-4 PFC CS-1 537 17L1420	171219G1-	Standard	40	5.25	7181.541	7181.541	7181.541	100.00
55	IPA	171219G1-	Analyte	40				7181.541	0.00
56	1701819-03 REEPDW014 0.26559	171219G1-	Analyte		5.25	6590.326	6590.326	7181.541	91.77
57	1701819-04 REEPDW014FRB 0.26615	171219G1-	Analyte		5.25	4945.636	4945.636	7181.541	68.87
58	1701819-05 REEPDW015 0.25975	171219G1-	Analyte		5.25	4828.903	4828.903	7181.541	67.24
59	1701819-06 REEPDW015FRB 0.24804	171219G1-	Analyte		5.25	4503.031	4503.031	7181.541	62.70
60	1701819-07 REEPDW016 0.24999	171219G1-	Analyte		5.25	5191.741	5191.741	7181.541	72.29
61	1701819-08 REEPDW016FRB 0.26007	171219G1-	Analyte		5.25	5558.855	5558.855	7181.541	77.40
62	1701819-09 REEPDW017 0.27853	171219G1-	Analyte		5.25	6174.537	6174.537	7181.541	85.98
63	1701819-10 REEPDW017FRB 0.26351	171219G1-	Analyte		5.25	5310.128	5310.128	7181.541	73.94
64	B7L0103-BS1 LFB 0.25	171219G1-	Analyte		5.25	4725.604	4725.604	7181.541	65.80
65	IPA	171219G1-	Analyte	40				7181.541	0.00
66	B7L0103-BLK1 LRB 0.25	171219G1-	Analyte		5.25	5555.885	5555.885	7181.541	77.36
67	B7L0103-MS1 LFSM 0.26861	171219G1-	Analyte		5.25	5729.632	5729.632	7181.541	79.78
68	B7L0103-MSD1 LFSMD 0.26227	171219G1-	Analyte		5.25	5342.75	5342.75	7181.541	74.40
69	1701834-01 REEPDW018 0.26178	171219G1-	Analyte		5.25	5620.978	5620.978	7181.541	78.27
70	1701834-02 REEPDW018FRB 0.25894	171219G1-	Analyte		5.25	5565.362	5565.362	7181.541	77.50
71	1701834-03 REEPDW019 0.26224	171219G1-	Analyte		5.25	5602.749	5602.749	7181.541	78.02

GM 12/20/17

72	1701834-04 REEPDW019FRB 0.2555	171219G1- Analyte		5.25	5864.031	5864.031	7181.541	81.65
73	1701834-05 REEPDW020 0.26836	171219G1- Analyte		5.25	5672.595	5672.595	7181.541	78.99
74	1701834-06 REEPDW020FRB 0.25691	171219G1- Analyte		5.25	5429.727	5429.727	7181.541	75.61
75	1701834-07 REEPDW501 0.25579	171219G1- Analyte		5.25	5250.799	5250.799	7181.541	73.12
76	1701834-08 REEPDW021 0.25254	171219G1- Analyte		5.25	5494.509	5494.509	7181.541	76.51
77	1701834-09 REEPDW021FRB 0.25976	171219G1- Analyte		5.25	5155.271	5155.271	7181.541	71.79
78	IPA	171219G1- Analyte	40				7181.541	0.00
79	ST171219G1-5 PFC CS3 537 17L1424	171219G1- Analyte	40	5.25	6227.027	6227.027	7181.541	86.71

GM 12/20/17

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Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-2.qld

Last Altered: Wednesday, December 20, 2017 09:58:15 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:58:23 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-2, Date: 19-Dec-2017, Time: 09:18:38, ID: ST171219G-1 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	6.43e2	1.24e4	1.0000		3.25	3.23	1.48	1.818	102.7
2	2	PFHxA	313.2 > 268.9	5.68e2	1.07e4	1.0000		3.62	3.60	0.530	2.435	121.7
3	3	PFHpA	363 > 318.9	1.72e3	1.07e4	1.0000		4.12	4.12	1.60	2.009	100.5
4	4	PFHxS	398.9 > 79.6	7.91e2	1.24e4	1.0000		4.26	4.23	1.83	1.917	105.3
5	5	PFOA	413 > 368.7	1.87e3	1.07e4	1.0000		4.53	4.53	1.75	2.187	109.3
6	6	PFNA	463 > 418.8	2.03e3	1.07e4	1.0000		4.89	4.86	1.89	2.032	101.6
7	7	PFOS	499 >79.9	9.78e2	1.24e4	1.0000		4.92	4.92	2.26	1.800	97.3
8	8	PFDA	513 > 468.8	2.11e3	1.07e4	1.0000		5.15	5.15	1.97	2.224	111.2
9	9	N-MeFOSAA	570.1 > 419.0	7.07e2	6.09e3	1.0000		5.27	5.27	4.65	1.831	91.6
10	10	N-EtFOSAA	584.2 >419.0	5.00e2	6.09e3	1.0000		5.39	5.39	3.29	1.733	86.7
11	11	PFUnA	563 > 518.9	1.81e3	1.07e4	1.0000		5.40	5.40	1.69	1.983	99.2
12	12	PFDoA	612.9 > 318.8	3.66e2	1.07e4	1.0000		5.61	5.62	0.341	1.898	94.9
13	13	PFTrDA	662.9 > 618.9	3.22e3	1.07e4	1.0000		5.75	5.81	3.00	2.127	106.4
14	14	PFTeDA	712.9 > 668.8	2.75e3	1.07e4	1.0000		5.93	5.97	2.57	1.898	94.9
15	15	13C2-PFHxA	315 > 269.8	4.72e3	1.07e4	1.0000	0.431	3.63	3.60	4.40	10.208	102.1
16	16	13C2-PFDA	515.1 > 469.9	5.97e3	1.07e4	1.0000	0.602	5.16	5.15	5.56	9.233	92.3
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.68e3	6.09e3	1.0000	1.205	5.27	5.39	50.4	41.846	104.6
18	18	13C2-PFOA	414.9 > 369.7	1.07e4	1.07e4	1.0000	1.000	4.41	4.53	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.24e4	1.24e4	1.0000	1.000	4.81	4.92	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.09e3	6.09e3	1.0000	1.000	5.16	5.27	40.0	40.000	100.0

70-130

MJT 12/20/17

MJT. 12/20/2017

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Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Compound name: PFBS

Name	ID	Acq.Date	Acq.Time
171219G1-1	IPA	19-Dec-17	09:05:43
171219G1-2	ST171219G-1 PFC CS-1 537 17L1420	19-Dec-17	09:18:38
171219G1-3	IPA	19-Dec-17	09:31:04
171219G1-4	1701818-11@5X REEPDW500 0.26268	19-Dec-17	09:43:32
171219G1-5	IPA	19-Dec-17	09:55:56
171219G1-6	B7L0113-BS1 LFB 0.25	19-Dec-17	10:08:24
171219G1-7	B7L0113-BSD1 LFBD 0.25	19-Dec-17	10:20:48
171219G1-8	B7L0122-BS1 LFB 0.25	19-Dec-17	10:33:14
171219G1-9	B7L0122-BSD1 LFBD 0.25	19-Dec-17	10:45:41
171219G1-10	IPA	19-Dec-17	10:58:07
171219G1-11	B7L0113-BLK1 LRB 0.25	19-Dec-17	11:10:34
171219G1-12	B7L0122-BLK1 LRB 0.25	19-Dec-17	11:23:02
171219G1-13	1701908-01 CH-AT-1RW140-1217 0.25432	19-Dec-17	11:35:30
171219G1-14	1701908-02 CH-AT-1FB140-1217 0.2486	19-Dec-17	11:47:59
171219G1-15	1701908-03 CH-AT-1RW141-1217 0.2485	19-Dec-17	12:00:23
171219G1-16	1701908-04 CH-AT-1FB141-1217 0.25001	19-Dec-17	12:12:47
171219G1-17	1701908-05 CH-AT-1RW142-1217 0.24021	19-Dec-17	12:25:11
171219G1-18	1701908-06 CH-AT-1FB142-1217 0.24538	19-Dec-17	12:37:37
171219G1-19	1701908-07 CH-AT-1RW143-1217 0.23689	19-Dec-17	12:50:04
171219G1-20	1701908-08 CH-AT-1FB143-1217 0.24193	19-Dec-17	13:02:31
171219G1-21	1701908-09 CH-AT-1RW144-1217 0.24851	19-Dec-17	13:14:59
171219G1-22	1701908-10 CH-AT-1FB144-1217 0.25707	19-Dec-17	13:27:28
171219G1-23	1701908-11 CH-AT-1RW145-1217 0.24027	19-Dec-17	13:39:52
171219G1-24	1701908-12 CH-AT-1FB145-1217 0.25132	19-Dec-17	13:52:16
171219G1-25	1701908-13 CH-AT-1RW146-1217 0.2307	19-Dec-17	14:04:42
171219G1-26	1701908-14 CH-AT-1FB146-1217 0.25631	19-Dec-17	14:17:08
171219G1-27	1701908-15 CH-AT-1RW147-1217 0.24663	19-Dec-17	14:29:34
171219G1-28	1701908-16 CH-AT-1FB147-1217 0.26156	19-Dec-17	14:42:00
171219G1-29	IPA	19-Dec-17	14:54:27
171219G1-30	ST171219G1-2 PFC CS3 537 17L1424	19-Dec-17	15:06:55
171219G1-31	IPA	19-Dec-17	15:19:23
171219G1-32	1701908-17 CH-AT-1RW148-1217 0.25489	19-Dec-17	15:31:51

Quantify Compound Summary Report **MassLynx MassLynx V4.1 SCN 945**
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Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

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171219G1-33	1701908-18 CH-AT-1FB148-1217 0.25113	19-Dec-17	15:44:19
171219G1-34	1701908-19 CH-AT-1RW149-1217 0.23111	19-Dec-17	15:56:43
171219G1-35	1701908-20 CH-AT-1FB149-1217 0.25162	19-Dec-17	16:09:08
171219G1-36	1701928-01 CH-AT-1RW153-1217 0.25	19-Dec-17	16:21:32
171219G1-37	1701928-02 CH-AT-1FB153-1217 0.25	19-Dec-17	16:33:57
171219G1-38	1701928-03 CH-AT-1RW154-1217 0.25	19-Dec-17	16:46:23
171219G1-39	1701928-04 CH-AT-1FB154-1217 0.25	19-Dec-17	16:58:50
171219G1-40	1701928-05 CH-AT-1RW155-1217 0.25	19-Dec-17	17:11:17
171219G1-41	1701928-06 CH-AT-1FB155-1217 0.25	19-Dec-17	17:23:45
171219G1-42	1701928-07 CH-AT-1RW156-1217 0.25	19-Dec-17	17:36:10
171219G1-43	1701928-08 CH-AT-1FB156-1217 0.25	19-Dec-17	17:48:34
171219G1-44	1701928-09 CH-AT-1RW157-1217 0.25	19-Dec-17	18:00:58
171219G1-45	1701928-10 CH-AT-1FB157-1217 0.25	19-Dec-17	18:13:23
171219G1-46	IPA	19-Dec-17	18:25:49
171219G1-47	ST171219G1-3 PFC CS5 537 17L1426	19-Dec-17	18:38:17
171219G1-48	IPA	19-Dec-17	18:50:43
171219G1-49	B7L0082-BS1 LFB 0.25	19-Dec-17	19:03:14
171219G1-50	B7L0082-BSD1 LFBD 0.25	19-Dec-17	19:15:39
171219G1-51	B7L0082-BLK1 LRB 0.25	19-Dec-17	19:28:07
171219G1-52	1701819-01 REEPDW013 0.25036	19-Dec-17	19:40:34
171219G1-53	1701819-02 REEPDW013FRB 0.26246	19-Dec-17	19:52:58
171219G1-54	IPA MJT 12/20/17	19-Dec-17	20:05:23
171219G1-55	ST171219G1-4 PFC CS-1 537 17L1420	19-Dec-17	20:17:51
171219G1-56	IPA	19-Dec-17	20:30:16
171219G1-57	1701819-03 REEPDW014 0.26559	19-Dec-17	20:42:44
171219G1-58	1701819-04 REEPDW014FRB 0.26615	19-Dec-17	20:55:09
171219G1-59	1701819-05 REEPDW015 0.25975	19-Dec-17	21:07:34
171219G1-60	1701819-06 REEPDW015FRB 0.24804	19-Dec-17	21:19:59
171219G1-61	1701819-07 REEPDW016 0.24999	19-Dec-17	21:32:24
171219G1-62	1701819-08 REEPDW016FRB 0.26007	19-Dec-17	21:44:50
171219G1-63	1701819-09 REEPDW017 0.27853	19-Dec-17	21:57:15
171219G1-64	1701819-10 REEPDW017FRB 0.26351	19-Dec-17	22:09:42
171219G1-65	B7L0103-BS1 LFB 0.25	19-Dec-17	22:22:09
171219G1-66	IPA	19-Dec-17	22:34:36
171219G1-67	B7L0103-BLK1 LRB 0.25	19-Dec-17	22:47:03
171219G1-68	B7L0103-MS1 LFSM 0.26861	19-Dec-17	22:59:31

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Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
69	171219G1-69	B7L0103-MSD1 LFSMD 0.26227	19-Dec-17	23:11:54
70	171219G1-70	1701834-01 REEPDW018 0.26178	19-Dec-17	23:24:20
71	171219G1-71	1701834-02 REEPDW018FRB 0.25894	19-Dec-17	23:36:45
72	171219G1-72	1701834-03 REEPDW019 0.26224	19-Dec-17	23:49:11
73	171219G1-73	1701834-04 REEPDW019FRB 0.2555	20-Dec-17	00:01:38
74	171219G1-74	1701834-05 REEPDW020 0.26836	20-Dec-17	00:14:07
75	171219G1-75	1701834-06 REEPDW020FRB 0.25691	20-Dec-17	00:26:35
76	171219G1-76	1701834-07 REEPDW501 0.25579	20-Dec-17	00:39:03
77	171219G1-77	1701834-08 REEPDW021 0.25254	20-Dec-17	00:51:28
78	171219G1-78	1701834-09 REEPDW021FRB 0.25976	20-Dec-17	01:03:53
79	171219G1-79	IPA	20-Dec-17	01:16:18
80	171219G1-80	ST171219G1-5 PFC CS3 537 17L1424	20-Dec-17	01:28:45
81	171219G1-81	IPA	20-Dec-17	01:41:11

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Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-2.qld

Last Altered: Wednesday, December 20, 2017 09:58:15 Pacific Standard Time
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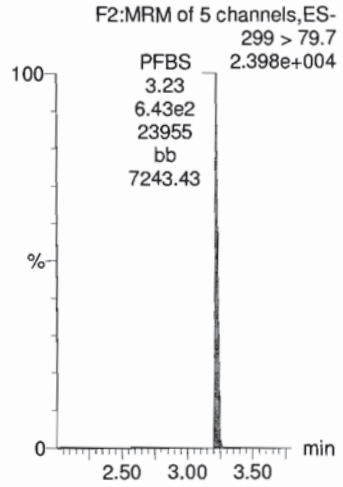
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-2, Date: 19-Dec-2017, Time: 09:18:38, ID: ST171219G-1 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

PFBS



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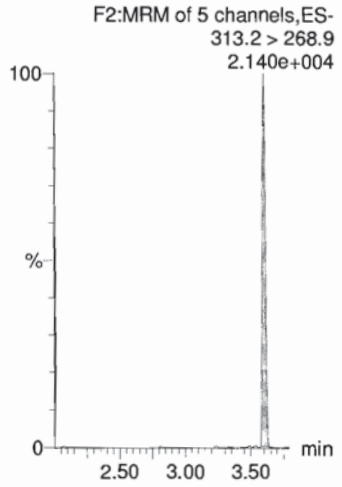

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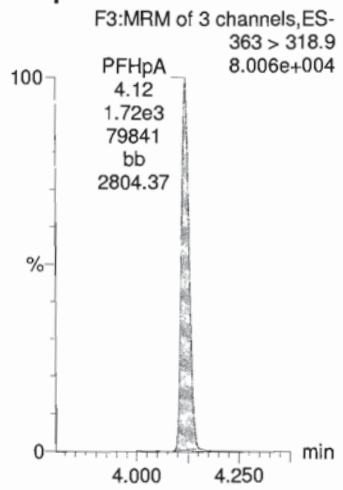

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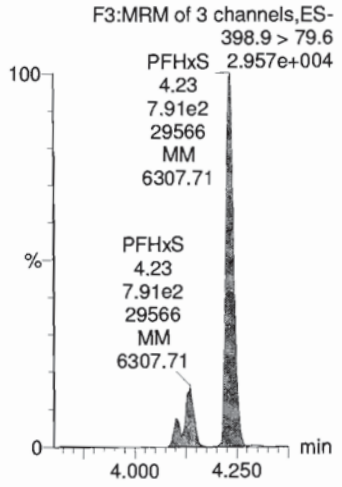

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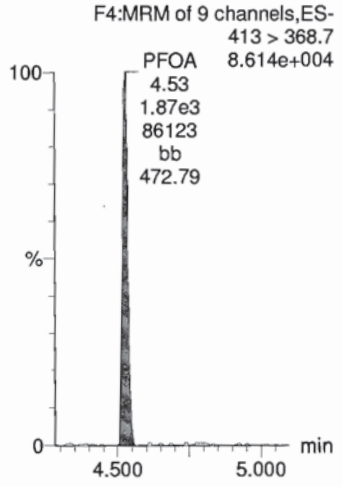

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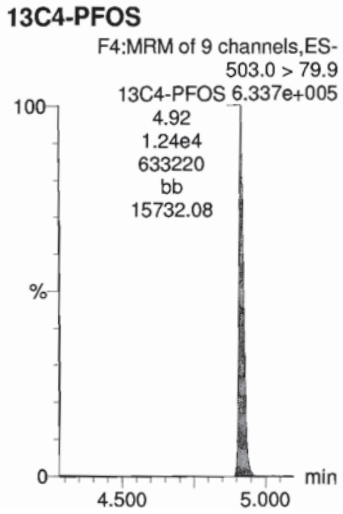

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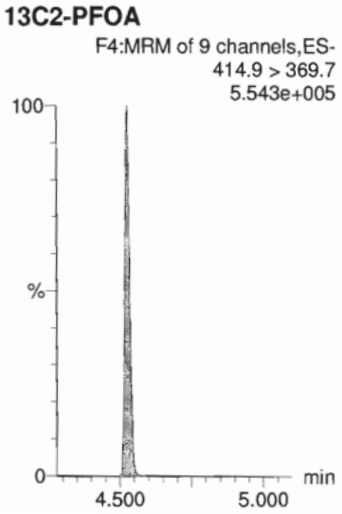

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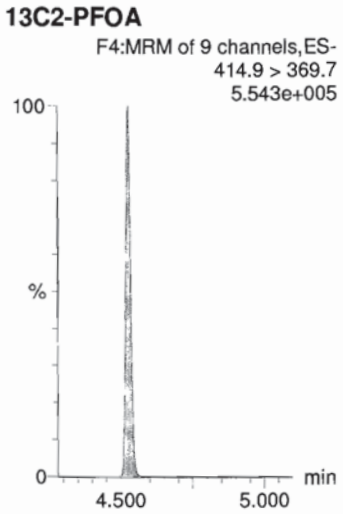

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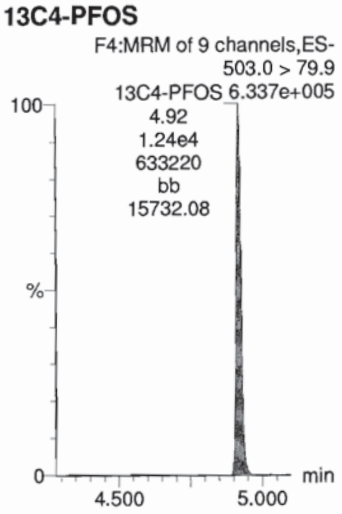

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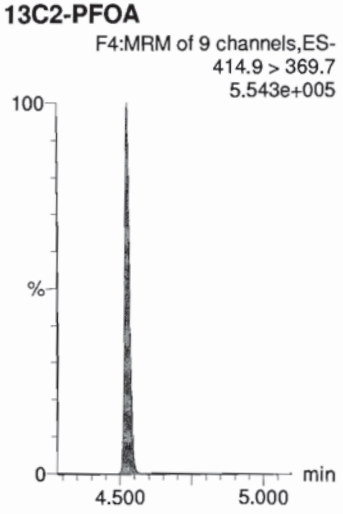

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Printed: Wednesday, December 20, 2017 09:58:23 Pacific Standard Time

Name: 171219G1-2, Date: 19-Dec-2017, Time: 09:18:38, ID: ST171219G-1 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

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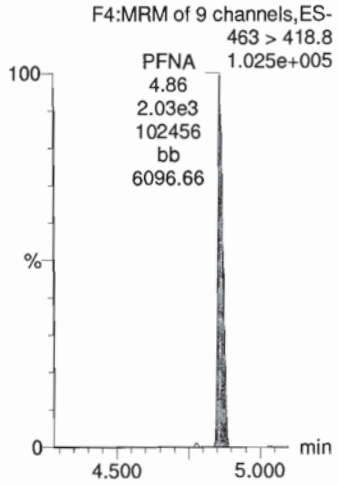

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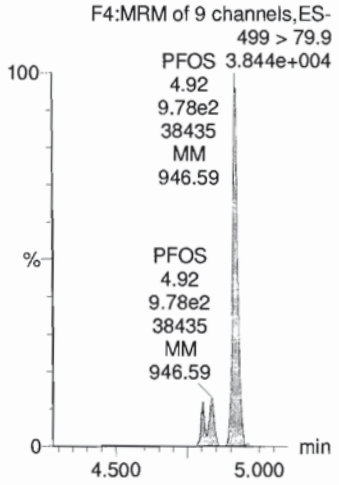

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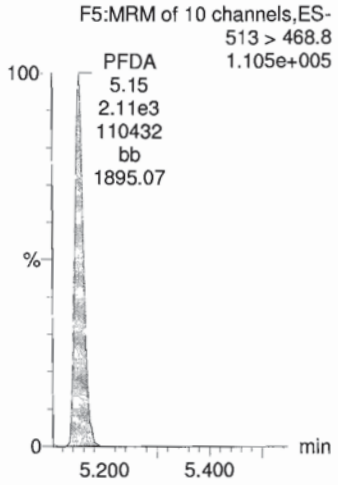

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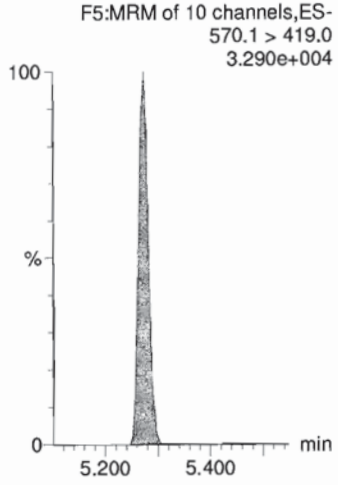

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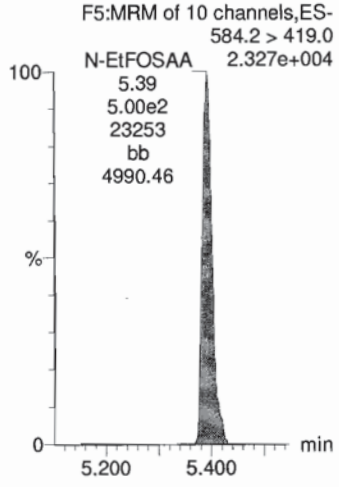

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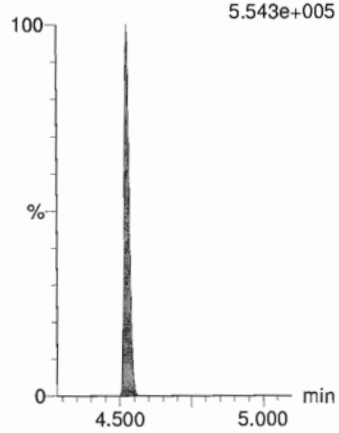

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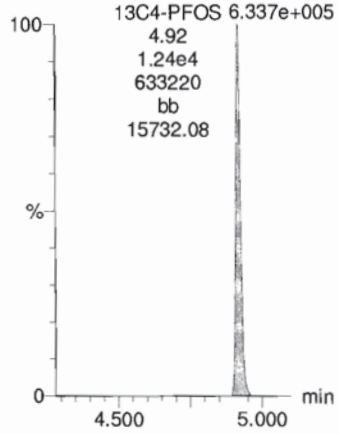

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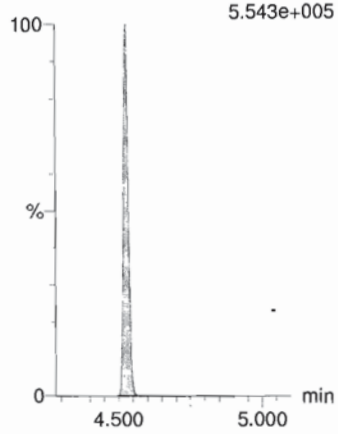

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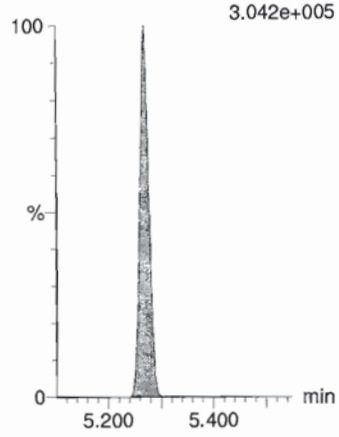

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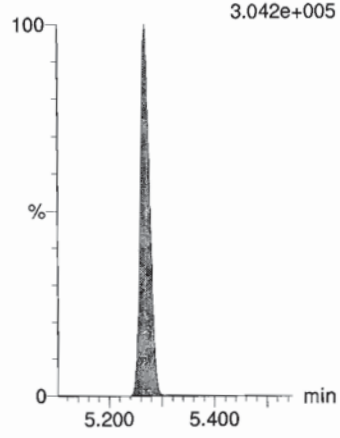

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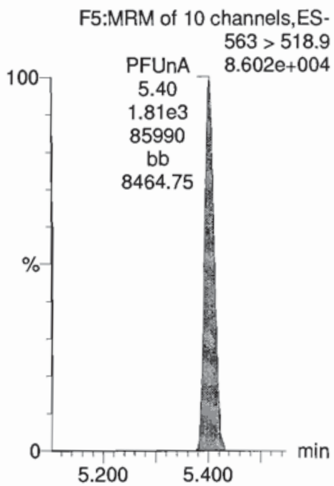
Last Altered: Wednesday, December 20, 2017 09:58:15 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:58:23 Pacific Standard Time

Name: 171219G1-2, Date: 19-Dec-2017, Time: 09:18:38, ID: ST171219G-1 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

PFUnA



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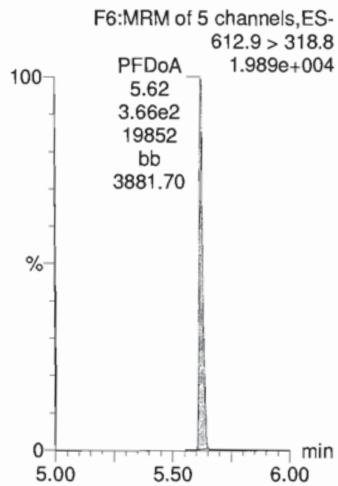

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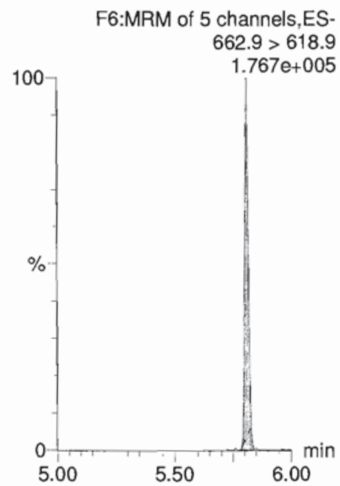

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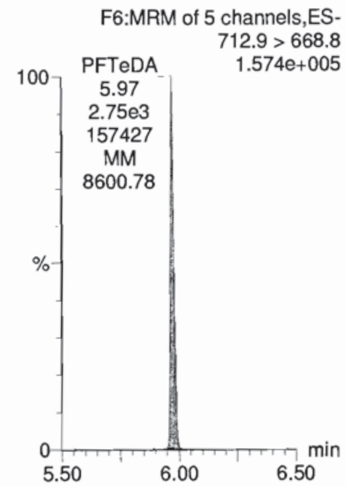

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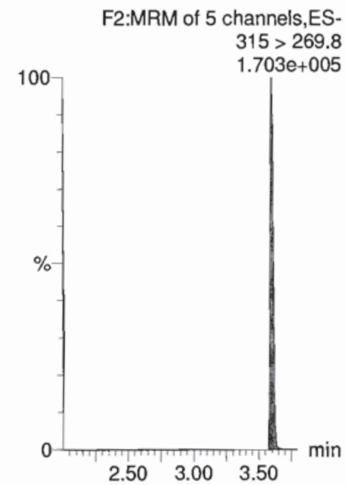

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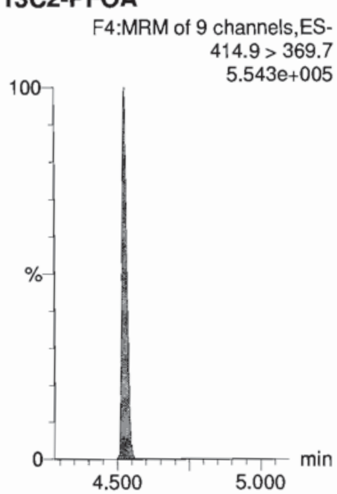

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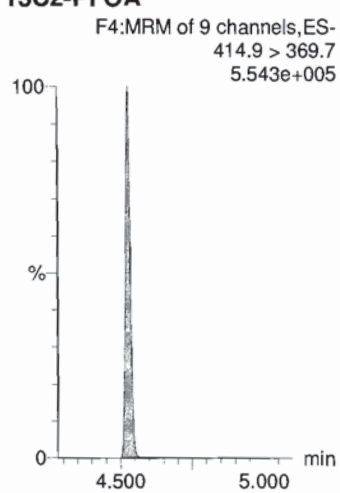

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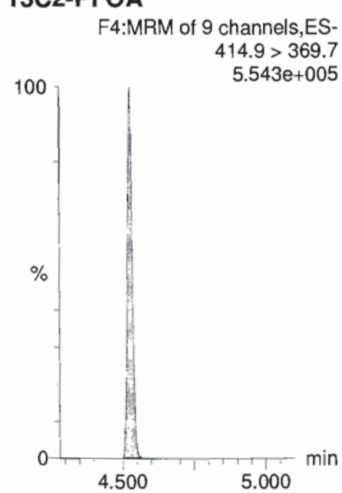

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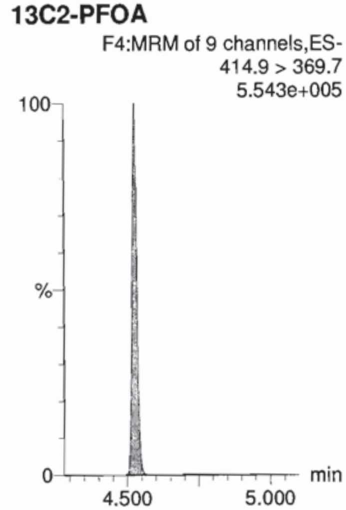

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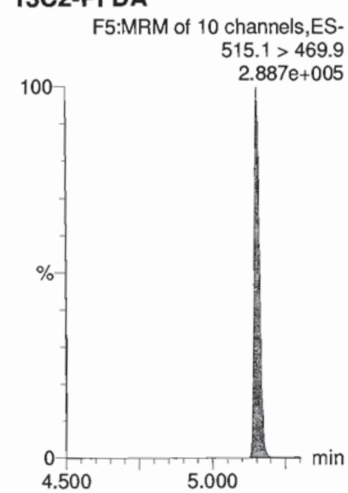

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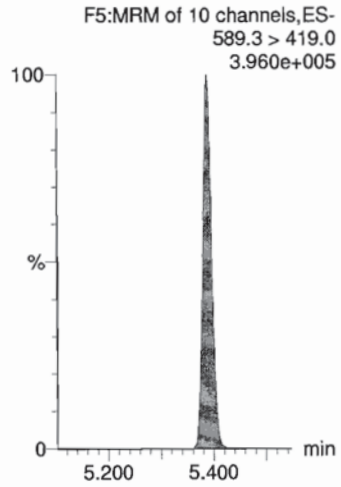
Printed: Wednesday, December 20, 2017 09:58:23 Pacific Standard Time

Name: 171219G1-2, Date: 19-Dec-2017, Time: 09:18:38, ID: ST171219G-1 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

d5-N-EtFOSAA



Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-30.qld

Last Altered: Tuesday, December 19, 2017 15:16:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:26 Pacific Standard Time

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Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-30, Date: 19-Dec-2017, Time: 15:06:55, ID: ST171219G1-2 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	1.28e4	1.08e4	1.0000		3.24	3.22	33.8	41.432	93.7
2	2	PFHxA	313.2 > 268.9	9.79e3	8.94e3	1.0000		3.62	3.60	11.0	50.323	100.6
3	3	PFHpA	363 > 318.9	3.93e4	8.94e3	1.0000		4.11	4.11	43.9	55.020	110.0
4	4	PFHxS	398.9 > 79.6	1.64e4	1.08e4	1.0000		4.25	4.23	43.5	45.699	100.2
5	5	PFOA	413 > 368.7	3.86e4	8.94e3	1.0000		4.52	4.52	43.1	54.016	108.0
6	6	PFNA	463 > 418.8	4.31e4	8.94e3	1.0000		4.88	4.86	48.2	51.725	103.5
7	7	PFOS	499 >79.9	2.27e4	1.08e4	1.0000		4.91	4.91	60.1	47.956	103.8
8	8	PFDA	513 > 468.8	3.74e4	8.94e3	1.0000		5.14	5.15	41.9	48.708	97.4
9	9	N-MeFOSAA	570.1 > 419.0	1.90e4	5.58e3	1.0000		5.26	5.26	136	50.201	100.4
10	10	N-EtFOSAA	584.2 >419.0	1.17e4	5.58e3	1.0000		5.38	5.39	83.6	44.097	88.2
11	11	PFUnA	563 > 518.9	4.02e4	8.94e3	1.0000		5.40	5.40	44.9	52.742	105.5
12	12	PFDoA	612.9 > 318.8	8.54e3	8.94e3	1.0000		5.61	5.62	9.55	53.113	106.2
13	13	PFTrDA	662.9 > 618.9	6.88e4	8.94e3	1.0000		5.74	5.80	76.9	54.562	109.1
14	14	PFTeDA	712.9 > 668.8	6.60e4	8.94e3	1.0000		5.92	5.96	73.8	54.594	109.2
15	15	13C2-PFHxA	315 > 269.8	4.21e3	8.94e3	1.0000	0.431	3.63	3.60	4.71	10.918	109.2
16	16	13C2-PFDA	515.1 > 469.9	5.38e3	8.94e3	1.0000	0.602	5.15	5.15	6.02	9.987	99.9
17	17	d5-N-EtFOSAA	589.3 > 419.0	6.68e3	5.58e3	1.0000	1.205	5.26	5.38	47.9	39.741	99.4
18	18	13C2-PFOA	414.9 > 369.7	8.94e3	8.94e3	1.0000	1.000	4.41	4.52	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	1.0000	1.000	4.81	4.91	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	5.58e3	5.58e3	1.0000	1.000	5.16	5.26	40.0	40.000	100.0

70-130

MJT 12/20/17

VJA 12/20/2017

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Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Compound name: PFBS

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171219G1-3	IPA	19-Dec-17	09:31:04
171219G1-4	1701818-11@5X REEPDW500 0.26268	19-Dec-17	09:43:32
171219G1-5	IPA	19-Dec-17	09:55:56
171219G1-6	B7L0113-BS1 LFB 0.25	19-Dec-17	10:08:24
171219G1-7	B7L0113-BSD1 LFBD 0.25	19-Dec-17	10:20:48
171219G1-8	B7L0122-BS1 LFB 0.25	19-Dec-17	10:33:14
171219G1-9	B7L0122-BSD1 LFBD 0.25	19-Dec-17	10:45:41
171219G1-10	IPA	19-Dec-17	10:58:07
171219G1-11	B7L0113-BLK1 LRB 0.25	19-Dec-17	11:10:34
171219G1-12	B7L0122-BLK1 LRB 0.25	19-Dec-17	11:23:02
171219G1-13	1701908-01 CH-AT-1RW140-1217 0.25432	19-Dec-17	11:35:30
171219G1-14	1701908-02 CH-AT-1FB140-1217 0.2486	19-Dec-17	11:47:59
171219G1-15	1701908-03 CH-AT-1RW141-1217 0.2485	19-Dec-17	12:00:23
171219G1-16	1701908-04 CH-AT-1FB141-1217 0.25001	19-Dec-17	12:12:47
171219G1-17	1701908-05 CH-AT-1RW142-1217 0.24021	19-Dec-17	12:25:11
171219G1-18	1701908-06 CH-AT-1FB142-1217 0.24538	19-Dec-17	12:37:37
171219G1-19	1701908-07 CH-AT-1RW143-1217 0.23689	19-Dec-17	12:50:04
171219G1-20	1701908-08 CH-AT-1FB143-1217 0.24193	19-Dec-17	13:02:31
171219G1-21	1701908-09 CH-AT-1RW144-1217 0.24851	19-Dec-17	13:14:59
171219G1-22	1701908-10 CH-AT-1FB144-1217 0.25707	19-Dec-17	13:27:28
171219G1-23	1701908-11 CH-AT-1RW145-1217 0.24027	19-Dec-17	13:39:52
171219G1-24	1701908-12 CH-AT-1FB145-1217 0.25132	19-Dec-17	13:52:16
171219G1-25	1701908-13 CH-AT-1RW146-1217 0.2307	19-Dec-17	14:04:42
171219G1-26	1701908-14 CH-AT-1FB146-1217 0.25631	19-Dec-17	14:17:08
171219G1-27	1701908-15 CH-AT-1RW147-1217 0.24663	19-Dec-17	14:29:34
171219G1-28	1701908-16 CH-AT-1FB147-1217 0.26156	19-Dec-17	14:42:00
171219G1-29	IPA	19-Dec-17	14:54:27
171219G1-30	ST171219G1-2 PFC CS3 537 17L1424	19-Dec-17	15:06:55
171219G1-31	IPA	19-Dec-17	15:19:23
171219G1-32	1701908-17 CH-AT-1RW148-1217 0.25489	19-Dec-17	15:31:51

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

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171219G1-35	1701908-20 CH-AT-1FB149-1217 0.25162	19-Dec-17	16:09:08
171219G1-36	1701928-01 CH-AT-1RW153-1217 0.25	19-Dec-17	16:21:32
171219G1-37	1701928-02 CH-AT-1FB153-1217 0.25	19-Dec-17	16:33:57
171219G1-38	1701928-03 CH-AT-1RW154-1217 0.25	19-Dec-17	16:46:23
171219G1-39	1701928-04 CH-AT-1FB154-1217 0.25	19-Dec-17	16:58:50
171219G1-40	1701928-05 CH-AT-1RW155-1217 0.25	19-Dec-17	17:11:17
171219G1-41	1701928-06 CH-AT-1FB155-1217 0.25	19-Dec-17	17:23:45
171219G1-42	1701928-07 CH-AT-1RW156-1217 0.25	19-Dec-17	17:36:10
171219G1-43	1701928-08 CH-AT-1FB156-1217 0.25	19-Dec-17	17:48:34
171219G1-44	1701928-09 CH-AT-1RW157-1217 0.25	19-Dec-17	18:00:58
171219G1-45	1701928-10 CH-AT-1FB157-1217 0.25	19-Dec-17	18:13:23
171219G1-46	IPA	19-Dec-17	18:25:49
171219G1-47	ST171219G1-3 PFC CS5 537 17L1426	19-Dec-17	18:38:17
171219G1-48	IPA	19-Dec-17	18:50:43
171219G1-49	B7L0082-BS1 LFB 0.25	19-Dec-17	19:03:14
171219G1-50	B7L0082-BSD1 LFBD 0.25	19-Dec-17	19:15:39
171219G1-51	B7L0082-BLK1 LRB 0.25	19-Dec-17	19:28:07
171219G1-52	1701819-01 REEPDW013 0.25036	19-Dec-17	19:40:34
171219G1-53	1701819-02 REEPDW013FRB 0.26246	19-Dec-17	19:52:58
171219G1-54	IPA MJT 12/20/17	19-Dec-17	20:05:23
171219G1-55	ST171219G1-4 PFC CS-1 537 17L1420	19-Dec-17	20:17:51
171219G1-56	IPA	19-Dec-17	20:30:16
171219G1-57	1701819-03 REEPDW014 0.26559	19-Dec-17	20:42:44
171219G1-58	1701819-04 REEPDW014FRB 0.26615	19-Dec-17	20:55:09
171219G1-59	1701819-05 REEPDW015 0.25975	19-Dec-17	21:07:34
171219G1-60	1701819-06 REEPDW015FRB 0.24804	19-Dec-17	21:19:59
171219G1-61	1701819-07 REEPDW016 0.24999	19-Dec-17	21:32:24
171219G1-62	1701819-08 REEPDW016FRB 0.26007	19-Dec-17	21:44:50
171219G1-63	1701819-09 REEPDW017 0.27853	19-Dec-17	21:57:15
171219G1-64	1701819-10 REEPDW017FRB 0.26351	19-Dec-17	22:09:42
171219G1-65	B7L0103-BS1 LFB 0.25	19-Dec-17	22:22:09
171219G1-66	IPA	19-Dec-17	22:34:36
171219G1-67	B7L0103-BLK1 LRB 0.25	19-Dec-17	22:47:03
171219G1-68	B7L0103-MS1 LFSM 0.26861	19-Dec-17	22:59:31

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Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

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70	171219G1-70	1701834-01 REEPDW018 0.26178	19-Dec-17	23:24:20
71	171219G1-71	1701834-02 REEPDW018FRB 0.25894	19-Dec-17	23:36:45
72	171219G1-72	1701834-03 REEPDW019 0.26224	19-Dec-17	23:49:11
73	171219G1-73	1701834-04 REEPDW019FRB 0.2555	20-Dec-17	00:01:38
74	171219G1-74	1701834-05 REEPDW020 0.26836	20-Dec-17	00:14:07
75	171219G1-75	1701834-06 REEPDW020FRB 0.25691	20-Dec-17	00:26:35
76	171219G1-76	1701834-07 REEPDW501 0.25579	20-Dec-17	00:39:03
77	171219G1-77	1701834-08 REEPDW021 0.25254	20-Dec-17	00:51:28
78	171219G1-78	1701834-09 REEPDW021FRB 0.25976	20-Dec-17	01:03:53
79	171219G1-79	IPA	20-Dec-17	01:16:18
80	171219G1-80	ST171219G1-5 PFC CS3 537 17L1424	20-Dec-17	01:28:45
81	171219G1-81	IPA	20-Dec-17	01:41:11

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-30.qld

Last Altered: Tuesday, December 19, 2017 15:16:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:26 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-30, Date: 19-Dec-2017, Time: 15:06:55, ID: ST171219G1-2 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

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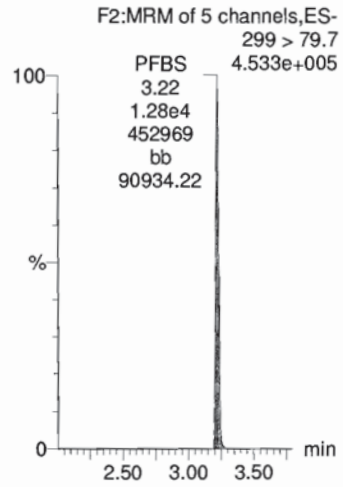

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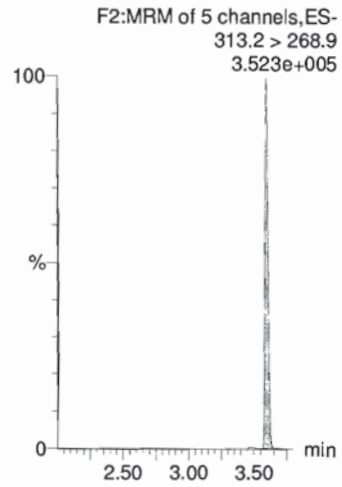

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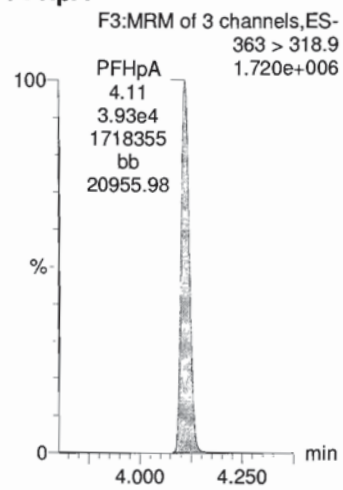

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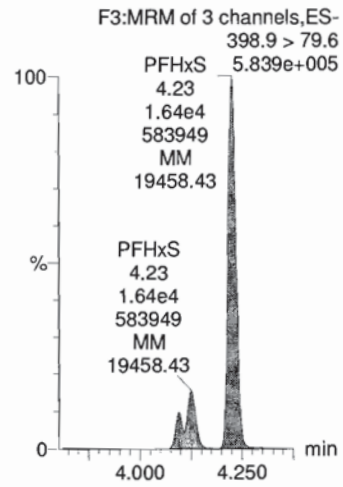

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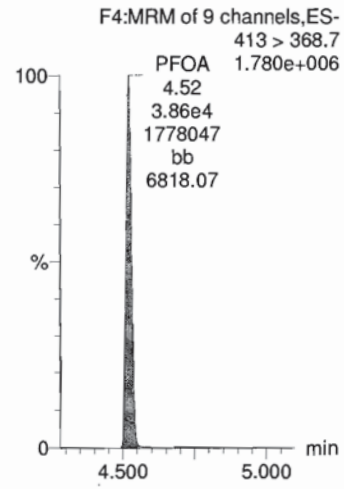
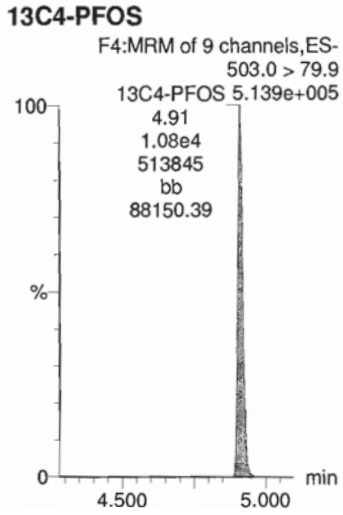


13C4-PFOS



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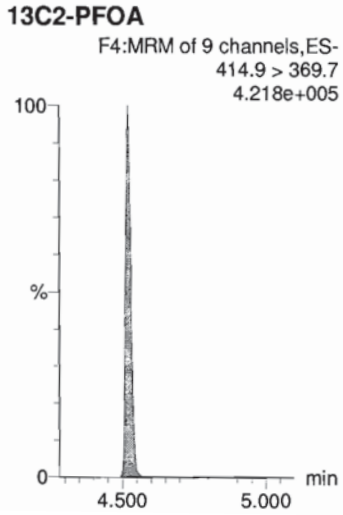

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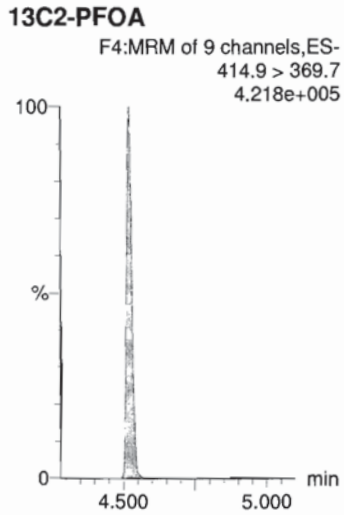

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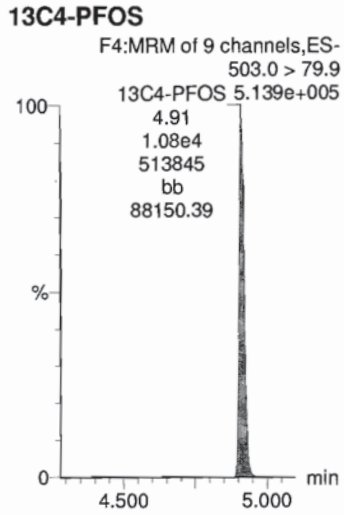

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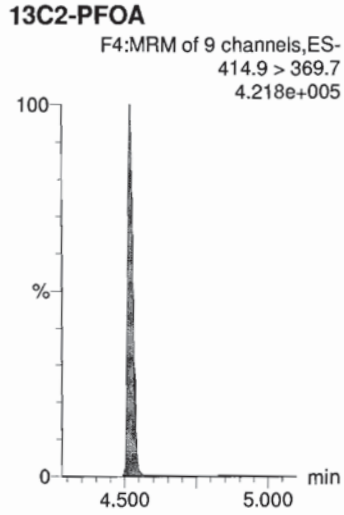

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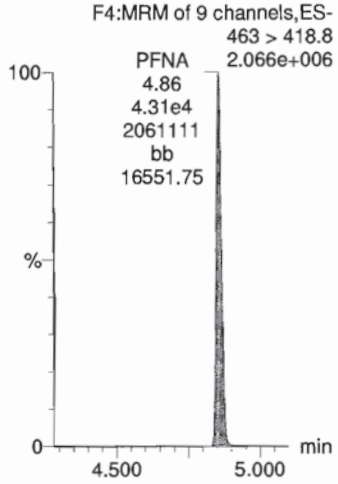
Last Altered: Tuesday, December 19, 2017 15:16:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:26 Pacific Standard Time

Name: 171219G1-30, Date: 19-Dec-2017, Time: 15:06:55, ID: ST171219G1-2 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

PFNA



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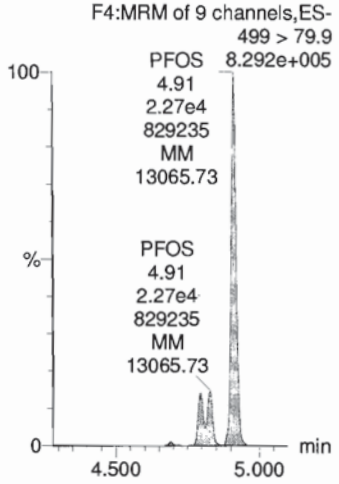

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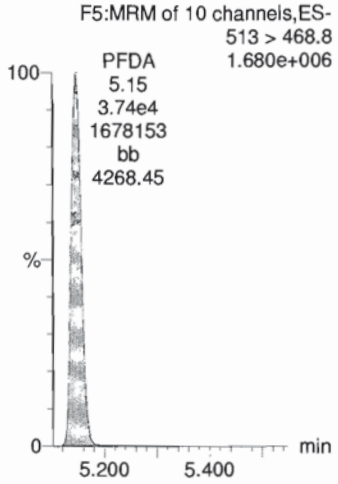

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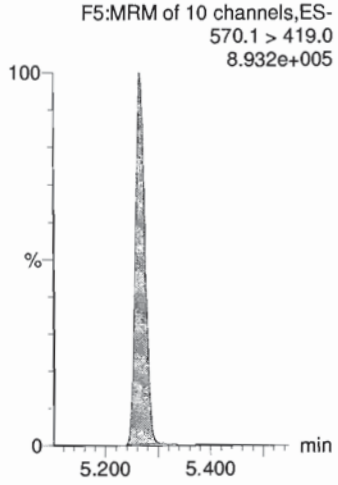

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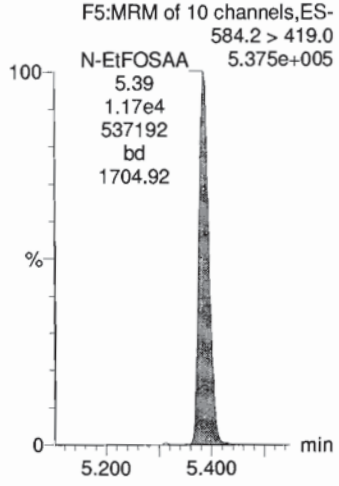

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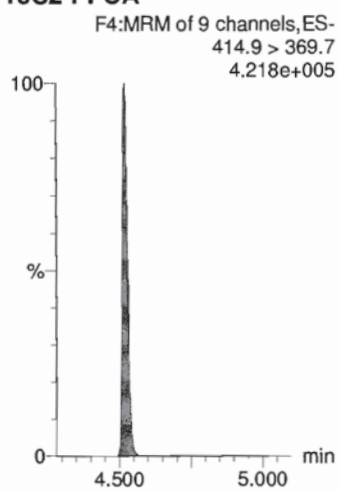

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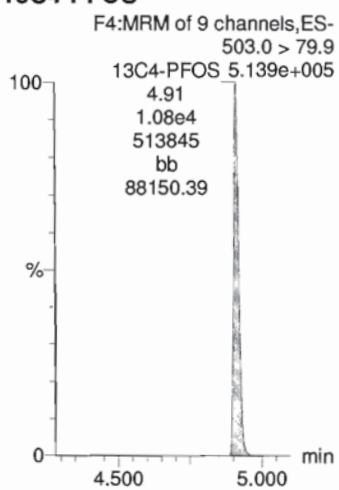

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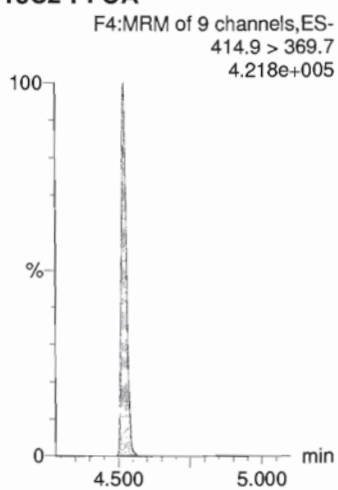

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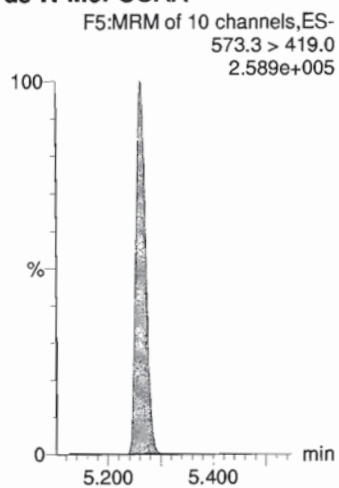

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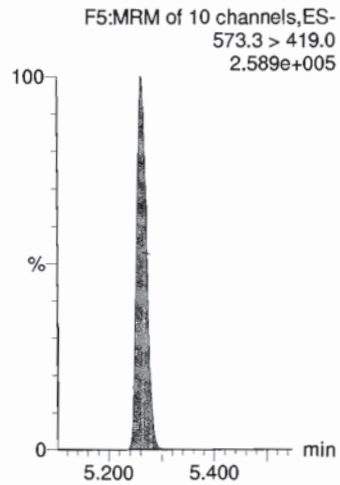

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-30.qld

Last Altered: Tuesday, December 19, 2017 15:16:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:26 Pacific Standard Time

Name: 171219G1-30, Date: 19-Dec-2017, Time: 15:06:55, ID: ST171219G1-2 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

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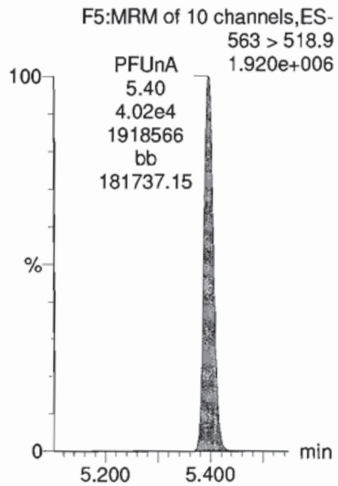

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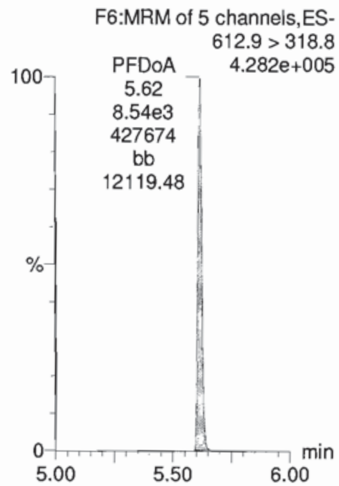

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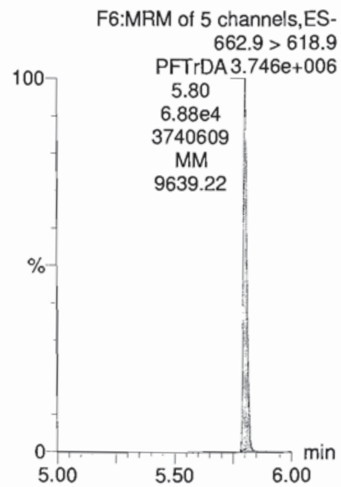

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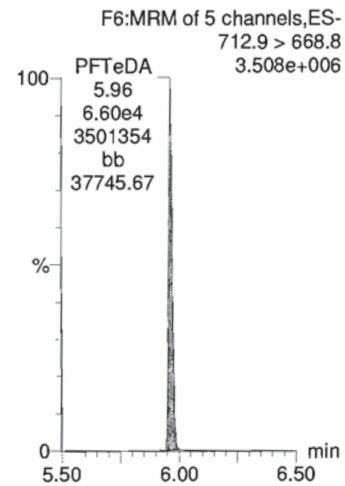

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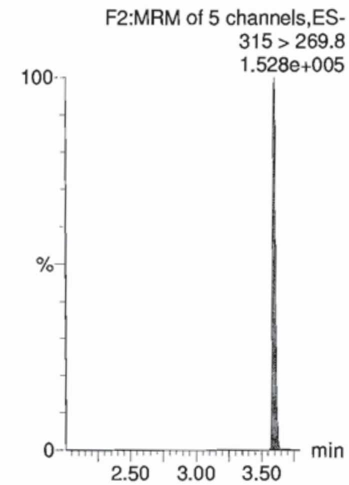

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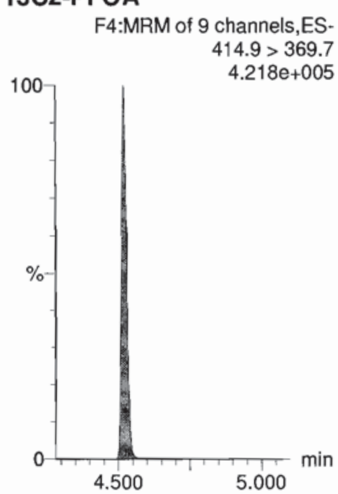

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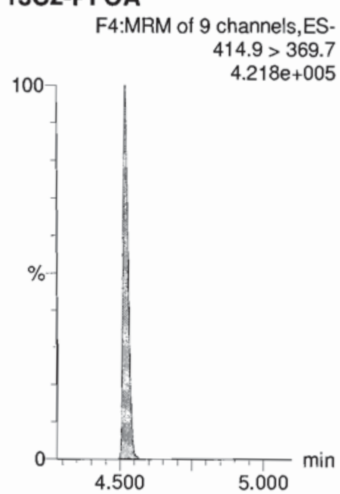

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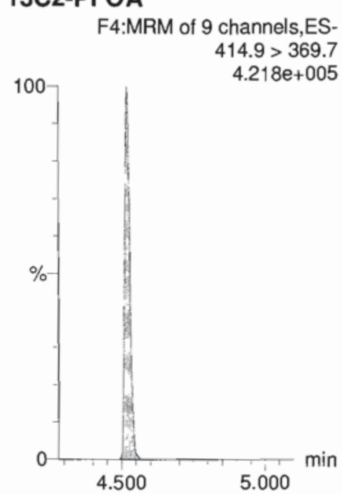

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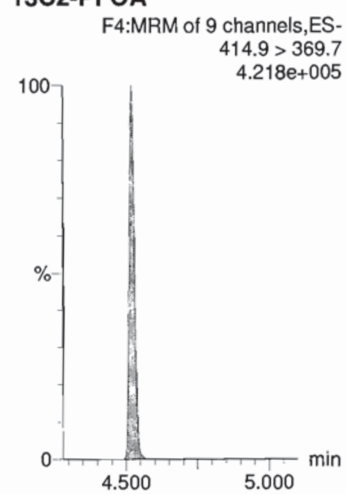

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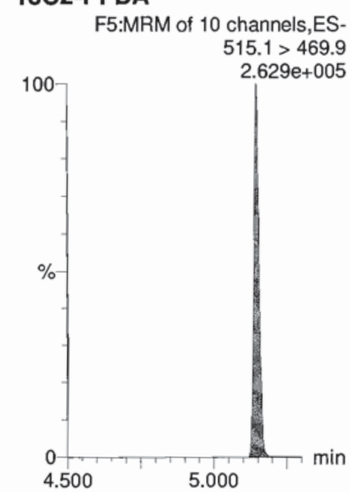

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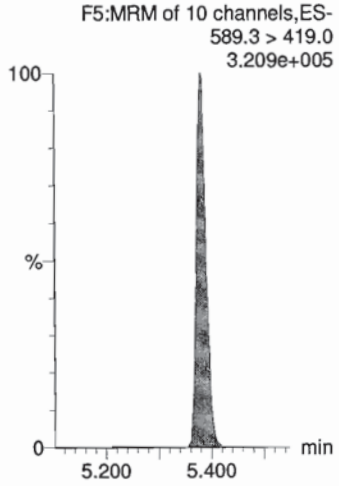
Last Altered: Tuesday, December 19, 2017 15:16:51 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:26 Pacific Standard Time

Name: 171219G1-30, Date: 19-Dec-2017, Time: 15:06:55, ID: ST171219G1-2 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

d5-N-EtFOSAA



Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-47.qld

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Printed: Wednesday, December 20, 2017 09:42:58 Pacific Standard Time

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Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-47, Date: 19-Dec-2017, Time: 18:38:17, ID: ST171219G1-3 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.48e4	1.04e4	1.0000		3.23	3.20	68.4	83.822	94.8
2	2	PFHxA	313.2 > 268.9	1.85e4	8.52e3	1.0000		3.61	3.58	21.8	100.016	100.0
3	3	PFHpA	363 > 318.9	7.07e4	8.52e3	1.0000		4.10	4.09	82.9	103.864	103.9
4	4	PFHxS	398.9 > 79.6	3.20e4	1.04e4	1.0000		4.24	4.21	88.3	92.746	101.7
5	5	PFOA	413 > 368.7	7.51e4	8.52e3	1.0000		4.51	4.51	88.1	110.327	110.3
6	6	PFNA	463 > 418.8	7.65e4	8.52e3	1.0000		4.87	4.84	89.8	96.335	96.3
7	7	PFOS	499 >79.9	4.37e4	1.04e4	1.0000		4.90	4.90	121	96.202	104.1
8	8	PFDA	513 > 468.8	7.39e4	8.52e3	1.0000		5.13	5.14	86.7	104.700	104.7
9	9	N-MeFOSAA	570.1 > 419.0	3.72e4	5.20e3	1.0000		5.25	5.25	286	98.922	98.9
10	10	N-EtFOSAA	584.2 >419.0	2.29e4	5.20e3	1.0000		5.37	5.38	176	92.837	92.8
11	11	PFUnA	563 > 518.9	7.55e4	8.52e3	1.0000		5.38	5.39	88.6	104.008	104.0
12	12	PFDoA	612.9 > 318.8	1.65e4	8.52e3	1.0000		5.59	5.61	19.3	107.572	107.6
13	13	PFTrDA	662.9 > 618.9	1.22e5	8.52e3	1.0000		5.73	5.79	143	101.202	101.2
14	14	PFTeDA	712.9 > 668.8	1.17e5	8.52e3	1.0000		5.91	5.96	137	101.491	101.5
15	15	13C2-PFHxA	315 > 269.8	3.97e3	8.52e3	1.0000	0.431	3.62	3.58	4.66	10.814	108.1
16	16	13C2-PFDA	515.1 > 469.9	4.82e3	8.52e3	1.0000	0.602	5.14	5.14	5.65	9.386	93.9
17	17	d5-N-EtFOSAA	589.3 > 419.0	6.28e3	5.20e3	1.0000	1.205	5.25	5.37	48.2	40.014	100.0
18	18	13C2-PFOA	414.9 > 369.7	8.52e3	8.52e3	1.0000	1.000	4.41	4.51	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.04e4	1.04e4	1.0000	1.000	4.81	4.90	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	5.20e3	5.20e3	1.0000	1.000	5.16	5.25	40.0	40.000	100.0

70-130%

MJT 12/20/17

✓ JA. 12/20/2017

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Compound name: PFBS

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171219G1-2	ST171219G-1 PFC CS-1 537 17L1420	19-Dec-17	09:18:38
171219G1-3	IPA	19-Dec-17	09:31:04
171219G1-4	1701818-11@5X REEPDW500 0.26268	19-Dec-17	09:43:32
171219G1-5	IPA	19-Dec-17	09:55:56
171219G1-6	B7L0113-BS1 LFB 0.25	19-Dec-17	10:08:24
171219G1-7	B7L0113-BSD1 LFBD 0.25	19-Dec-17	10:20:48
171219G1-8	B7L0122-BS1 LFB 0.25	19-Dec-17	10:33:14
171219G1-9	B7L0122-BSD1 LFBD 0.25	19-Dec-17	10:45:41
171219G1-10	IPA	19-Dec-17	10:58:07
171219G1-11	B7L0113-BLK1 LRB 0.25	19-Dec-17	11:10:34
171219G1-12	B7L0122-BLK1 LRB 0.25	19-Dec-17	11:23:02
171219G1-13	1701908-01 CH-AT-1RW140-1217 0.25432	19-Dec-17	11:35:30
171219G1-14	1701908-02 CH-AT-1FB140-1217 0.2486	19-Dec-17	11:47:59
171219G1-15	1701908-03 CH-AT-1RW141-1217 0.2485	19-Dec-17	12:00:23
171219G1-16	1701908-04 CH-AT-1FB141-1217 0.25001	19-Dec-17	12:12:47
171219G1-17	1701908-05 CH-AT-1RW142-1217 0.24021	19-Dec-17	12:25:11
171219G1-18	1701908-06 CH-AT-1FB142-1217 0.24538	19-Dec-17	12:37:37
171219G1-19	1701908-07 CH-AT-1RW143-1217 0.23689	19-Dec-17	12:50:04
171219G1-20	1701908-08 CH-AT-1FB143-1217 0.24193	19-Dec-17	13:02:31
171219G1-21	1701908-09 CH-AT-1RW144-1217 0.24851	19-Dec-17	13:14:59
171219G1-22	1701908-10 CH-AT-1FB144-1217 0.25707	19-Dec-17	13:27:28
171219G1-23	1701908-11 CH-AT-1RW145-1217 0.24027	19-Dec-17	13:39:52
171219G1-24	1701908-12 CH-AT-1FB145-1217 0.25132	19-Dec-17	13:52:16
171219G1-25	1701908-13 CH-AT-1RW146-1217 0.2307	19-Dec-17	14:04:42
171219G1-26	1701908-14 CH-AT-1FB146-1217 0.25631	19-Dec-17	14:17:08
171219G1-27	1701908-15 CH-AT-1RW147-1217 0.24663	19-Dec-17	14:29:34
171219G1-28	1701908-16 CH-AT-1FB147-1217 0.26156	19-Dec-17	14:42:00
171219G1-29	IPA	19-Dec-17	14:54:27
171219G1-30	ST171219G1-2 PFC CS3 537 17L1424	19-Dec-17	15:06:55
171219G1-31	IPA	19-Dec-17	15:19:23
171219G1-32	1701908-17 CH-AT-1RW148-1217 0.25489	19-Dec-17	15:31:51

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

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34	171219G1-34	1701908-19 CH-AT-1RW149-1217 0.23111	19-Dec-17	15:56:43
35	171219G1-35	1701908-20 CH-AT-1FB149-1217 0.25162	19-Dec-17	16:09:08
36	171219G1-36	1701928-01 CH-AT-1RW153-1217 0.25	19-Dec-17	16:21:32
37	171219G1-37	1701928-02 CH-AT-1FB153-1217 0.25	19-Dec-17	16:33:57
38	171219G1-38	1701928-03 CH-AT-1RW154-1217 0.25	19-Dec-17	16:46:23
39	171219G1-39	1701928-04 CH-AT-1FB154-1217 0.25	19-Dec-17	16:58:50
40	171219G1-40	1701928-05 CH-AT-1RW155-1217 0.25	19-Dec-17	17:11:17
41	171219G1-41	1701928-06 CH-AT-1FB155-1217 0.25	19-Dec-17	17:23:45
42	171219G1-42	1701928-07 CH-AT-1RW156-1217 0.25	19-Dec-17	17:36:10
43	171219G1-43	1701928-08 CH-AT-1FB156-1217 0.25	19-Dec-17	17:48:34
44	171219G1-44	1701928-09 CH-AT-1RW157-1217 0.25	19-Dec-17	18:00:58
45	171219G1-45	1701928-10 CH-AT-1FB157-1217 0.25	19-Dec-17	18:13:23
46	171219G1-46	IPA	19-Dec-17	18:25:49
47	171219G1-47	ST171219G1-3 PFC CS5 537 17L1426	19-Dec-17	18:38:17
48	171219G1-48	IPA	19-Dec-17	18:50:43
49	171219G1-49	B7L0082-BS1 LFB 0.25	19-Dec-17	19:03:14
50	171219G1-50	B7L0082-BSD1 LFBD 0.25	19-Dec-17	19:15:39
51	171219G1-51	B7L0082-BLK1 LRB 0.25	19-Dec-17	19:28:07
52	171219G1-52	1701819-01 REEPDW013 0.25036	19-Dec-17	19:40:34
53	171219G1-53	1701819-02 REEPDW013FRB 0.26246	19-Dec-17	19:52:58
54	171219G1-54	IPA MJ 12/20/17	19-Dec-17	20:05:23
55	171219G1-55	ST171219G1-4 PFC CS-1 537 17L1420	19-Dec-17	20:17:51
56	171219G1-56	IPA	19-Dec-17	20:30:16
57	171219G1-57	1701819-03 REEPDW014 0.26559	19-Dec-17	20:42:44
58	171219G1-58	1701819-04 REEPDW014FRB 0.26615	19-Dec-17	20:55:09
59	171219G1-59	1701819-05 REEPDW015 0.25975	19-Dec-17	21:07:34
60	171219G1-60	1701819-06 REEPDW015FRB 0.24804	19-Dec-17	21:19:59
61	171219G1-61	1701819-07 REEPDW016 0.24999	19-Dec-17	21:32:24
62	171219G1-62	1701819-08 REEPDW016FRB 0.26007	19-Dec-17	21:44:50
63	171219G1-63	1701819-09 REEPDW017 0.27853	19-Dec-17	21:57:15
64	171219G1-64	1701819-10 REEPDW017FRB 0.26351	19-Dec-17	22:09:42
65	171219G1-65	B7L0103-BS1 LFB 0.25	19-Dec-17	22:22:09
66	171219G1-66	IPA	19-Dec-17	22:34:36
67	171219G1-67	B7L0103-BLK1 LRB 0.25	19-Dec-17	22:47:03
68	171219G1-68	B7L0103-MS1 LFSM 0.26861	19-Dec-17	22:59:31

Dataset: Untitled

Last Altered: Wednesday, December 20, 2017 09:44:38 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:45:33 Pacific Standard Time

Compound name: PFBS

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70	171219G1-70	1701834-01 REEPDW018 0.26178	19-Dec-17	23:24:20
71	171219G1-71	1701834-02 REEPDW018FRB 0.25894	19-Dec-17	23:36:45
72	171219G1-72	1701834-03 REEPDW019 0.26224	19-Dec-17	23:49:11
73	171219G1-73	1701834-04 REEPDW019FRB 0.2555	20-Dec-17	00:01:38
74	171219G1-74	1701834-05 REEPDW020 0.26836	20-Dec-17	00:14:07
75	171219G1-75	1701834-06 REEPDW020FRB 0.25691	20-Dec-17	00:26:35
76	171219G1-76	1701834-07 REEPDW501 0.25579	20-Dec-17	00:39:03
77	171219G1-77	1701834-08 REEPDW021 0.25254	20-Dec-17	00:51:28
78	171219G1-78	1701834-09 REEPDW021FRB 0.25976	20-Dec-17	01:03:53
79	171219G1-79	IPA	20-Dec-17	01:16:18
80	171219G1-80	ST171219G1-5 PFC CS3 537 17L1424	20-Dec-17	01:28:45
81	171219G1-81	IPA	20-Dec-17	01:41:11

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Last Altered: Wednesday, December 20, 2017 08:11:02 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:58 Pacific Standard Time

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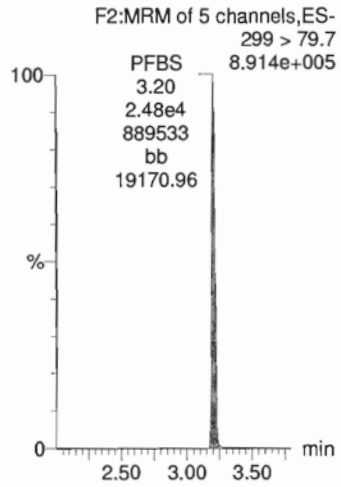
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Name: 171219G1-47, Date: 19-Dec-2017, Time: 18:38:17, ID: ST171219G1-3 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

PFBS



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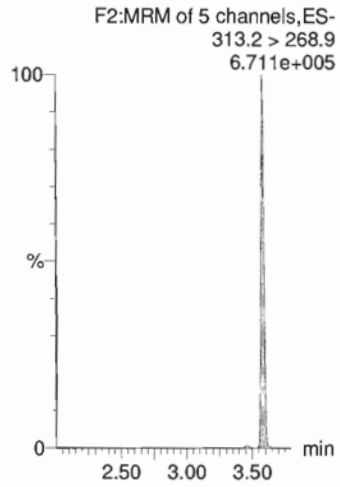
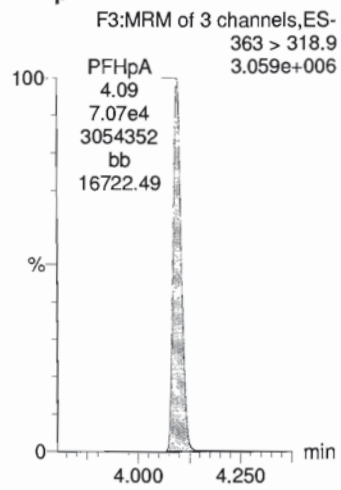
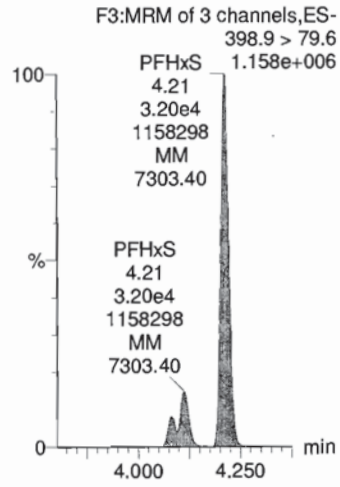


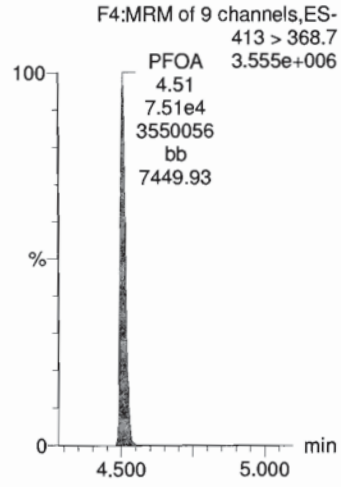
PFHpA



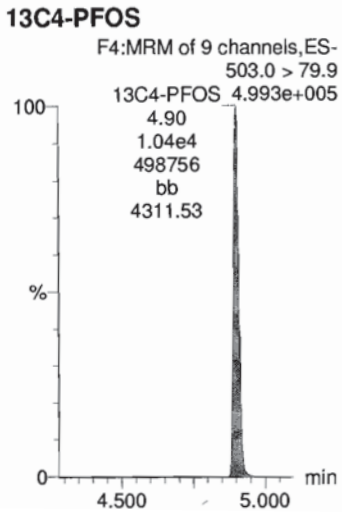
PFHxS



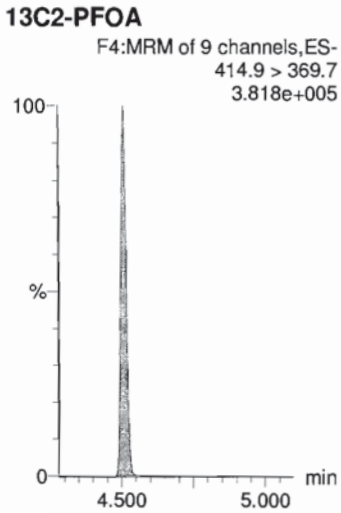
PFOA



13C4-PFOS



13C2-PFOA



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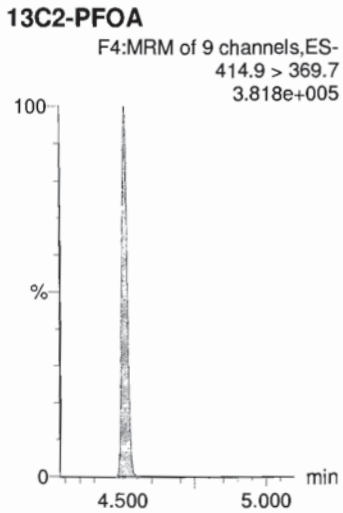

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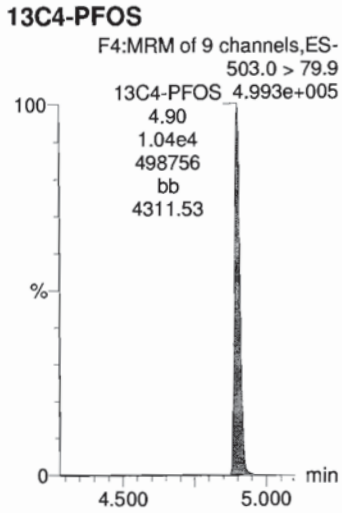

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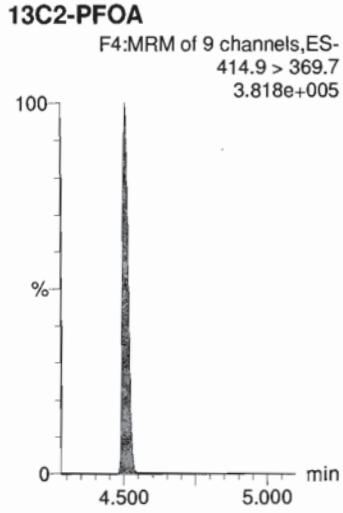
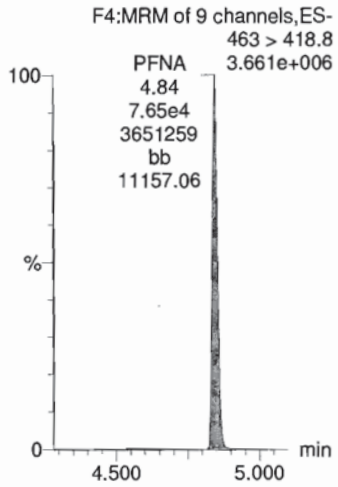


Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-47.qld

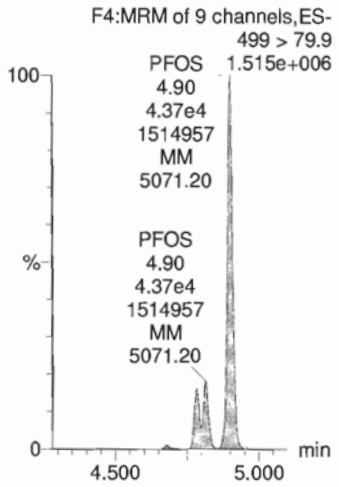
Last Altered: Wednesday, December 20, 2017 08:11:02 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:58 Pacific Standard Time

Name: 171219G1-47, Date: 19-Dec-2017, Time: 18:38:17, ID: ST171219G1-3 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

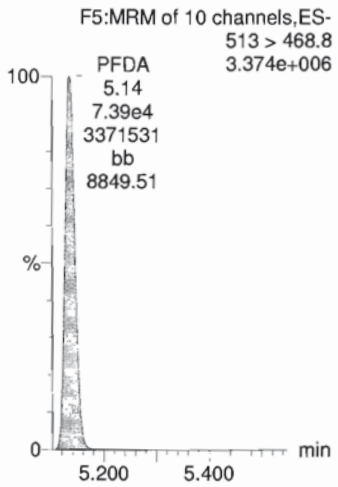
PFNA



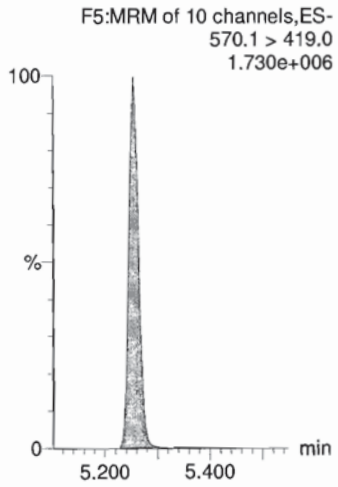
PFOS



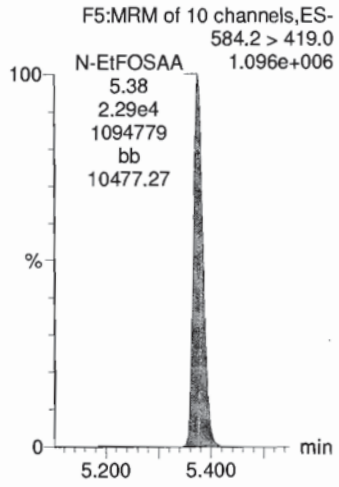
PFDA



N-MeFOSAA



N-EtFOSAA



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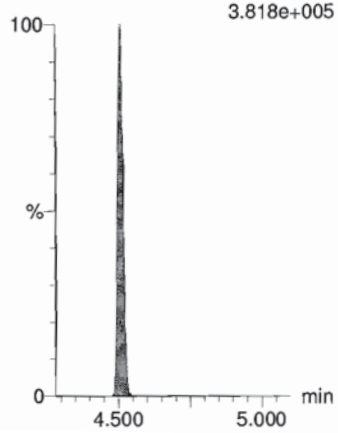

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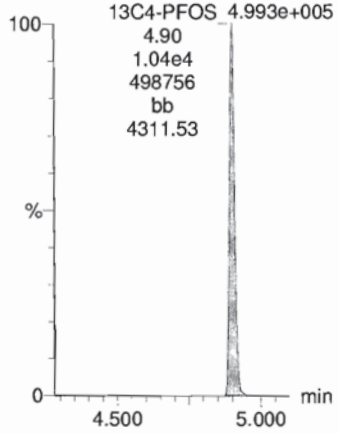

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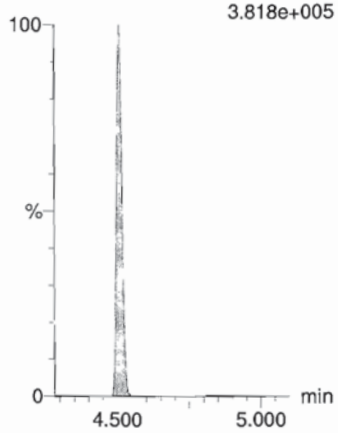
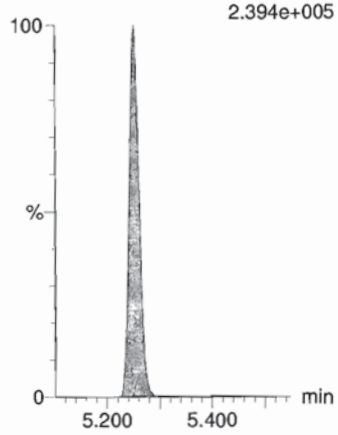
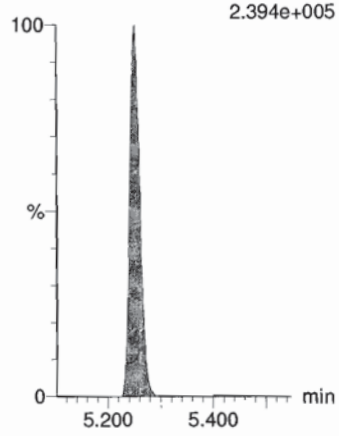


d3-N-MeFOSAA



d3-N-MeFOSAA



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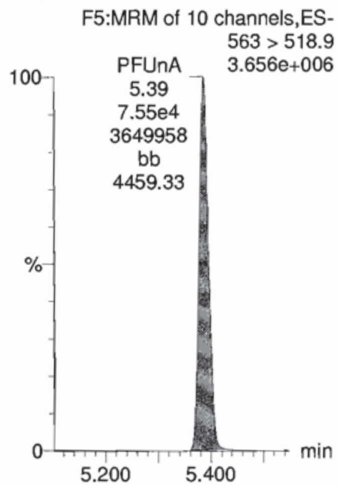
Dataset: U:\G1.PRO\Results\2017\171219G1\171219G1-47.qld

Last Altered: Wednesday, December 20, 2017 08:11:02 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:58 Pacific Standard Time

Name: 171219G1-47, Date: 19-Dec-2017, Time: 18:38:17, ID: ST171219G1-3 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

PFUnA



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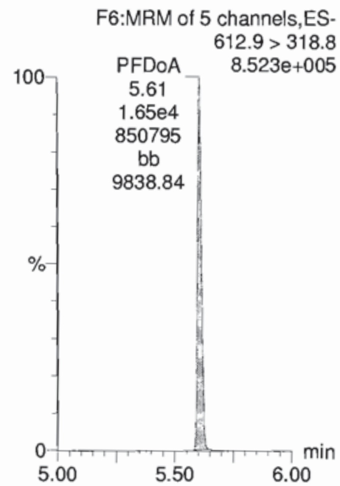
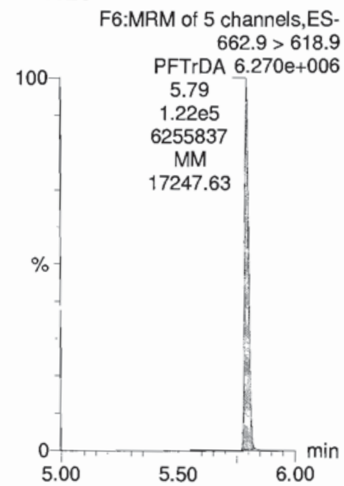
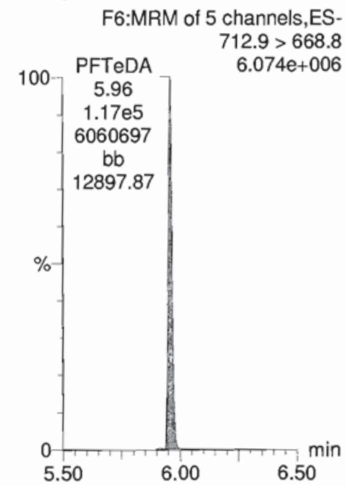


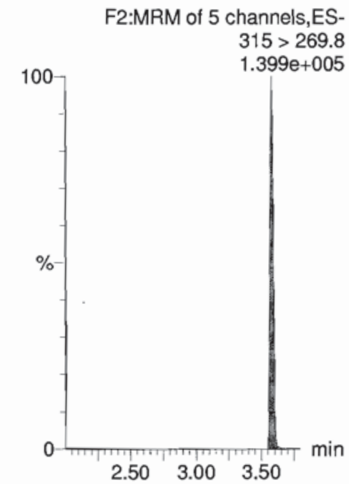
PFTrDA



PFTeDA



13C2-PFHxA



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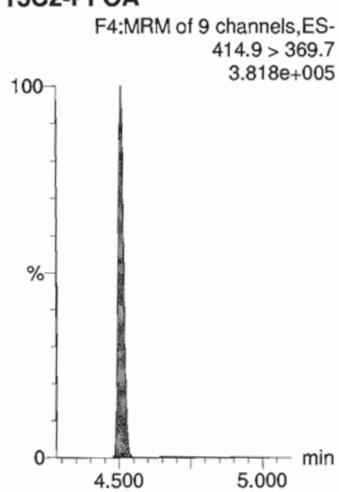

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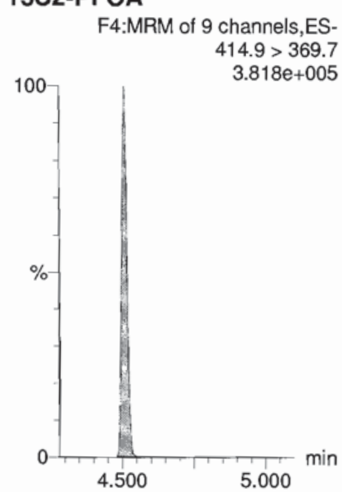

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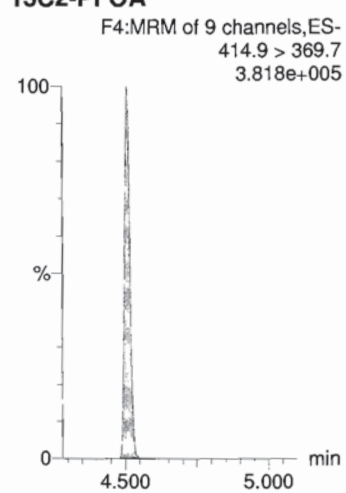
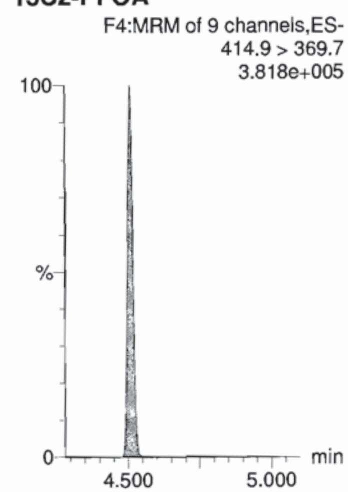
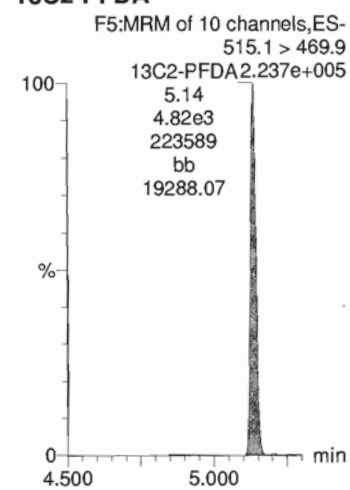


13C2-PFOA



13C2-PFDA



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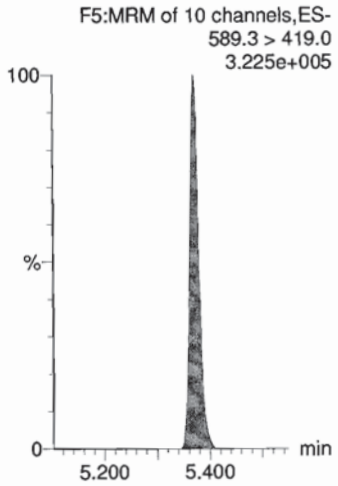
Last Altered: Wednesday, December 20, 2017 08:11:02 Pacific Standard Time
Printed: Wednesday, December 20, 2017 09:42:58 Pacific Standard Time

Name: 171219G1-47, Date: 19-Dec-2017, Time: 18:38:17, ID: ST171219G1-3 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

d5-N-EtFOSAA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV)

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

MJT 12/18/17

✓ JH 12/18/2017

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999463
Calibration curve: 0.815838 * 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	171216G2-9	Standard	0.443	3.31	162.876	14324.527	0.326	0.4	-9.6	NO	0.999	NO	bbX
2	2	171216G2-10	Standard	0.885	3.31	336.979	13534.720	0.715	0.9	-1.0	NO	0.999	NO	bb
3	3	171216G2-11	Standard	1.770	3.31	651.219	12926.765	1.446	1.8	0.1	NO	0.999	NO	bb
4	4	171216G2-12	Standard	4.420	3.31	1546.936	12919.998	3.436	4.2	-4.7	NO	0.999	NO	bb
5	5	171216G2-13	Standard	8.850	3.31	3150.514	13292.188	6.802	8.3	-5.8	NO	0.999	NO	bb
6	6	171216G2-14	Standard	22.100	3.31	7859.291	12276.330	18.374	22.5	1.9	NO	0.999	NO	bb
7	7	171216G2-15	Standard	44.200	3.31	14584.632	11391.944	36.743	45.0	1.9	NO	0.999	NO	bb
8	8	171216G2-16	Standard	66.300	3.30	21790.234	11655.357	53.656	65.8	-0.8	NO	0.999	NO	bb
9	9	171216G2-17	Standard	88.400	3.30	28694.436	10737.759	76.695	94.0	6.3	NO	0.999	NO	bbX

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998446
Calibration curve: 0.217604 * 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	171216G2-9	Standard	0.500	3.71	179.351	11451.849	0.157	0.7	43.9	NO	0.998	NO	MMX
2	2	171216G2-10	Standard	1.000	3.71	310.555	10799.798	0.288	1.3	32.1	NO	0.998	NO	MM
3	3	171216G2-11	Standard	2.000	3.70	621.747	11191.183	0.556	2.6	27.7	NO	0.998	NO	MM
4	4	171216G2-12	Standard	5.000	3.70	1228.942	10585.336	1.161	5.3	6.7	NO	0.998	NO	MM
5	5	171216G2-13	Standard	10.000	3.70	2372.527	11054.179	2.146	9.9	-1.4	NO	0.998	NO	MM
6	6	171216G2-14	Standard	25.000	3.70	5548.298	10660.352	5.205	23.9	-4.3	NO	0.998	NO	MM
7	7	171216G2-15	Standard	50.000	3.70	11023.742	10294.256	10.709	49.2	-1.6	NO	0.998	NO	MM
8	8	171216G2-16	Standard	75.000	3.70	15833.438	9751.885	16.236	74.6	-0.5	NO	0.998	NO	MM
9	9	171216G2-17	Standard	100.000	3.70	20460.676	9292.692	22.018	101.2	1.2	NO	0.998	NO	MM

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Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999152
Calibration curve: 0.798357 * 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	171216G2-9	Standard	0.500	4.23	401.101	11451.849	0.350	0.4	-12.3	NO	0.999	NO	MM
2	2	171216G2-10	Standard	1.000	4.22	847.118	10799.798	0.784	1.0	-1.8	NO	0.999	NO	MM
3	3	171216G2-11	Standard	2.000	4.22	1758.919	11191.183	1.572	2.0	-1.6	NO	0.999	NO	MM
4	4	171216G2-12	Standard	5.000	4.21	4406.714	10585.336	4.163	5.2	4.3	NO	0.999	NO	MM
5	5	171216G2-13	Standard	10.000	4.21	8443.121	11054.179	7.638	9.6	-4.3	NO	0.999	NO	MM
6	6	171216G2-14	Standard	25.000	4.21	20797.498	10660.352	19.509	24.4	-2.3	NO	0.999	NO	MM
7	7	171216G2-15	Standard	50.000	4.21	40158.895	10294.256	39.011	48.9	-2.3	NO	0.999	NO	MM
8	8	171216G2-16	Standard	75.000	4.21	59969.816	9751.885	61.496	77.0	2.7	NO	0.999	NO	MM
9	9	171216G2-17	Standard	100.000	4.21	76923.648	9292.692	82.779	103.7	3.7	NO	0.999	NO	MMX

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998272
Calibration curve: 0.952404 * 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	171216G2-9	Standard	0.455	4.34	192.719	14324.527	0.386	0.4	-10.9	NO	0.998	NO	MMX
2	2	171216G2-10	Standard	0.910	4.33	429.011	13534.720	0.910	1.0	5.0	NO	0.998	NO	MM
3	3	171216G2-11	Standard	1.820	4.33	756.040	12926.765	1.679	1.8	-3.2	NO	0.998	NO	MM
4	4	171216G2-12	Standard	4.560	4.33	1927.068	12919.998	4.281	4.5	-1.4	NO	0.998	NO	MM
5	5	171216G2-13	Standard	9.120	4.32	3558.063	13292.188	7.682	8.1	-11.6	NO	0.998	NO	MM
6	6	171216G2-14	Standard	22.800	4.32	9288.928	12276.330	21.716	22.8	0.0	NO	0.998	NO	MM
7	7	171216G2-15	Standard	45.600	4.32	17992.545	11391.944	45.329	47.6	4.4	NO	0.998	NO	MM
8	8	171216G2-16	Standard	68.400	4.32	26121.576	11655.357	64.321	67.5	-1.3	NO	0.998	NO	MM
9	9	171216G2-17	Standard	91.200	4.32	32908.965	10737.759	87.959	92.4	1.3	NO	0.998	NO	MMX

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.999126
Calibration curve: 0.798539 * 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	171216G2-9	Standard	0.500	4.63	461.050	11451.849	0.403	0.5	0.8	NO	0.999	NO	MM
2	2	171216G2-10	Standard	1.000	4.62	1064.253	10799.798	0.985	1.2	23.4	NO	0.999	NO	MM
3	3	171216G2-11	Standard	2.000	4.62	1751.160	11191.183	1.565	2.0	-2.0	NO	0.999	NO	MM
4	4	171216G2-12	Standard	5.000	4.62	4047.855	10585.336	3.824	4.8	-4.2	NO	0.999	NO	MM
5	5	171216G2-13	Standard	10.000	4.62	9320.276	11054.179	8.431	10.6	5.6	NO	0.999	NO	MM
6	6	171216G2-14	Standard	25.000	4.62	21859.672	10660.352	20.506	25.7	2.7	NO	0.999	NO	MM
7	7	171216G2-15	Standard	50.000	4.62	40356.008	10294.256	39.202	49.1	-1.8	NO	0.999	NO	MM
8	8	171216G2-16	Standard	75.000	4.61	58157.813	9751.885	59.638	74.7	-0.4	NO	0.999	NO	MM
9	9	171216G2-17	Standard	100.000	4.61	76379.023	9292.692	82.193	102.9	2.9	NO	0.999	NO	MMX

Compound name: PFNA
Coefficient of Determination: R^2 = 0.997983
Calibration curve: 0.931848 * 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	171216G2-9	Standard	0.500	4.96	533.994	11451.849	0.466	0.5	0.1	NO	0.998	NO	MM
2	2	171216G2-10	Standard	1.000	4.96	940.292	10799.798	0.871	0.9	-6.6	NO	0.998	NO	MM
3	3	171216G2-11	Standard	2.000	4.95	2018.879	11191.183	1.804	1.9	-3.2	NO	0.998	NO	MM
4	4	171216G2-12	Standard	5.000	4.95	5457.339	10585.336	5.156	5.5	10.7	NO	0.998	NO	MM
5	5	171216G2-13	Standard	10.000	4.95	9998.343	11054.179	9.045	9.7	-2.9	NO	0.998	NO	MM
6	6	171216G2-14	Standard	25.000	4.95	22658.732	10660.352	21.255	22.8	-8.8	NO	0.998	NO	MM
7	7	171216G2-15	Standard	50.000	4.95	48246.895	10294.256	46.868	50.3	0.6	NO	0.998	NO	MM
8	8	171216G2-16	Standard	75.000	4.94	69776.750	9751.885	71.552	76.8	2.4	NO	0.998	NO	MM
9	9	171216G2-17	Standard	100.000	4.94	86204.922	9292.692	92.766	99.6	-0.4	NO	0.998	NO	MMX

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.997754
Calibration curve: 1.25338 * 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	171216G2-9	Standard	0.464	5.01	239.904	14324.527	0.481	0.4	-17.4	NO	0.998	NO	MMX
2	2	171216G2-10	Standard	0.925	5.01	470.710	13534.720	0.998	0.8	-13.9	NO	0.998	NO	MM
3	3	171216G2-11	Standard	1.850	5.01	1051.938	12926.765	2.336	1.9	0.7	NO	0.998	NO	MM
4	4	171216G2-12	Standard	4.625	5.00	2670.010	12919.998	5.931	4.7	2.3	NO	0.998	NO	MM
5	5	171216G2-13	Standard	9.250	5.00	4969.387	13292.188	10.730	8.6	-7.5	NO	0.998	NO	MM
6	6	171216G2-14	Standard	23.100	5.00	12386.591	12276.330	28.958	23.1	0.0	NO	0.998	NO	MM
7	7	171216G2-15	Standard	46.200	5.00	24355.307	11391.944	61.359	49.0	6.0	NO	0.998	NO	MM
8	8	171216G2-16	Standard	69.300	5.00	34225.441	11655.357	84.276	67.2	-3.0	NO	0.998	NO	MM
9	9	171216G2-17	Standard	92.400	5.00	44937.156	10737.759	120.109	95.8	3.7	NO	0.998	NO	MMX

Compound name: PFDA
Coefficient of Determination: R^2 = 0.999050
Calibration curve: -0.000556908 * x^2 + 0.886608 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, 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	171216G2-9	Standard	0.500	5.25	644.902	11451.849	0.563	0.6	27.1	NO	0.999	NO	MM
2	2	171216G2-10	Standard	1.000	5.24	1183.299	10799.798	1.096	1.2	23.7	NO	0.999	NO	MM
3	3	171216G2-11	Standard	2.000	5.24	2012.200	11191.183	1.798	2.0	1.5	NO	0.999	NO	MM
4	4	171216G2-12	Standard	5.000	5.24	4643.445	10585.336	4.387	5.0	-0.7	NO	0.999	NO	MM
5	5	171216G2-13	Standard	10.000	5.24	9864.173	11054.179	8.923	10.1	1.3	NO	0.999	NO	MM
6	6	171216G2-14	Standard	25.000	5.24	22385.563	10660.352	20.999	24.0	-3.8	NO	0.999	NO	MM
7	7	171216G2-15	Standard	50.000	5.23	44589.059	10294.256	43.315	50.5	0.9	NO	0.999	NO	MM
8	8	171216G2-16	Standard	75.000	5.23	61795.375	9751.885	63.368	75.0	0.0	NO	0.999	NO	MM
9	9	171216G2-17	Standard	100.000	5.23	79238.859	9292.692	85.270	102.8	2.8	NO	0.999	NO	MMX

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999604
Calibration curve: 0.00361609 * x^2 + 2.52998 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, 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	171216G2-9	Standard	0.500	5.37	239.002	7149.723	1.337	0.5	5.6	NO	1.000	NO	MM
2	2	171216G2-10	Standard	1.000	5.36	378.238	6658.350	2.272	0.9	-10.3	NO	1.000	NO	MM
3	3	171216G2-11	Standard	2.000	5.37	724.112	6472.295	4.475	1.8	-11.8	NO	1.000	NO	MM
4	4	171216G2-12	Standard	5.000	5.36	2089.795	6155.667	13.580	5.3	6.5	NO	1.000	NO	MM
5	5	171216G2-13	Standard	10.000	5.36	3939.154	6280.129	25.090	9.8	-2.2	NO	1.000	NO	MM
6	6	171216G2-14	Standard	25.000	5.35	10467.558	6356.821	65.867	25.1	0.5	NO	1.000	NO	MM
7	7	171216G2-15	Standard	50.000	5.36	20405.707	5989.695	136.272	50.3	0.5	NO	1.000	NO	MM
8	8	171216G2-16	Standard	75.000	5.36	31757.504	6062.900	209.520	74.8	-0.2	NO	1.000	NO	MM
9	9	171216G2-17	Standard	100.000	5.35	40027.078	5115.337	312.997	107.3	7.3	NO	1.000	NO	MMX

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997900
Calibration curve: 1.89593 * 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	171216G2-9	Standard	0.500	5.49	172.534	7149.723	0.965	0.5	1.8	NO	0.998	NO	MM
2	2	171216G2-10	Standard	1.000	5.48	325.896	6658.350	1.958	1.0	3.3	NO	0.998	NO	MM
3	3	171216G2-11	Standard	2.000	5.48	583.906	6472.295	3.609	1.9	-4.8	NO	0.998	NO	MM
4	4	171216G2-12	Standard	5.000	5.48	1571.738	6155.667	10.213	5.4	7.7	NO	0.998	NO	MM
5	5	171216G2-13	Standard	10.000	5.48	3016.886	6280.129	19.215	10.1	1.4	NO	0.998	NO	MM
6	6	171216G2-14	Standard	25.000	5.48	7365.462	6356.821	46.347	24.4	-2.2	NO	0.998	NO	MM
7	7	171216G2-15	Standard	50.000	5.48	15011.362	5989.695	100.248	52.9	5.8	NO	0.998	NO	MM
8	8	171216G2-16	Standard	75.000	5.47	20751.586	6062.900	136.909	72.2	-3.7	NO	0.998	NO	MM
9	9	171216G2-17	Standard	100.000	5.47	25938.957	5115.337	202.833	107.0	7.0	NO	0.998	NO	MMX

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998998
Calibration curve: 0.852106 * 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	171216G2-9	Standard	0.500	5.50	515.437	11451.849	0.450	0.5	5.6	NO	0.999	NO	MM
2	2	171216G2-10	Standard	1.000	5.49	996.053	10799.798	0.922	1.1	8.2	NO	0.999	NO	MM
3	3	171216G2-11	Standard	2.000	5.49	1866.703	11191.183	1.668	2.0	-2.1	NO	0.999	NO	MM
4	4	171216G2-12	Standard	5.000	5.49	4686.649	10585.336	4.427	5.2	3.9	NO	0.999	NO	MM
5	5	171216G2-13	Standard	10.000	5.49	9493.643	11054.179	8.588	10.1	0.8	NO	0.999	NO	MM
6	6	171216G2-14	Standard	25.000	5.49	24167.361	10660.352	22.670	26.6	6.4	NO	0.999	NO	MM
7	7	171216G2-15	Standard	50.000	5.49	43050.797	10294.256	41.820	49.1	-1.8	NO	0.999	NO	MM
8	8	171216G2-16	Standard	75.000	5.48	61469.266	9751.885	63.033	74.0	-1.4	NO	0.999	NO	MM
9	9	171216G2-17	Standard	100.000	5.48	78342.750	9292.692	84.306	98.9	-1.1	NO	0.999	NO	MMX

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999658
Calibration curve: 0.179736 * 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	171216G2-9	Standard	0.500	5.72	79.897	11451.849	0.070	0.4	-22.4	NO	1.000	NO	MM
2	2	171216G2-10	Standard	1.000	5.71	197.199	10799.798	0.183	1.0	1.6	NO	1.000	NO	MM
3	3	171216G2-11	Standard	2.000	5.71	402.312	11191.183	0.359	2.0	0.0	NO	1.000	NO	MM
4	4	171216G2-12	Standard	5.000	5.71	1014.377	10585.336	0.958	5.3	6.6	NO	1.000	NO	MM
5	5	171216G2-13	Standard	10.000	5.71	1965.815	11054.179	1.778	9.9	-1.1	NO	1.000	NO	MM
6	6	171216G2-14	Standard	25.000	5.70	4792.867	10660.352	4.496	25.0	0.1	NO	1.000	NO	MM
7	7	171216G2-15	Standard	50.000	5.70	9179.188	10294.256	8.917	49.6	-0.8	NO	1.000	NO	MM
8	8	171216G2-16	Standard	75.000	5.70	13188.628	9751.885	13.524	75.2	0.3	NO	1.000	NO	MM
9	9	171216G2-17	Standard	100.000	5.70	16899.688	9292.692	18.186	101.2	1.2	NO	1.000	NO	MMX

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999525
Calibration curve: 1.40909 * 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	171216G2-9	Standard	0.500	5.90	901.878	11451.849	0.788	0.6	11.8	NO	1.000	NO	MM
2	2	171216G2-10	Standard	1.000	5.89	1598.682	10799.798	1.480	1.1	5.1	NO	1.000	NO	MM
3	3	171216G2-11	Standard	2.000	5.89	3255.377	11191.183	2.909	2.1	3.2	NO	1.000	NO	MM
4	4	171216G2-12	Standard	5.000	5.89	8129.971	10585.336	7.680	5.5	9.0	NO	1.000	NO	MM
5	5	171216G2-13	Standard	10.000	5.89	15654.644	11054.179	14.162	10.1	0.5	NO	1.000	NO	MM
6	6	171216G2-14	Standard	25.000	5.89	36867.684	10660.352	34.584	24.5	-1.8	NO	1.000	NO	MM
7	7	171216G2-15	Standard	50.000	5.89	71585.781	10294.256	69.540	49.4	-1.3	NO	1.000	NO	MM
8	8	171216G2-16	Standard	75.000	5.88	103651.789	9751.885	106.289	75.4	0.6	NO	1.000	NO	MM
9	9	171216G2-17	Standard	100.000	5.88	134279.656	9292.692	144.500	102.5	2.5	NO	1.000	NO	MMX

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998912
Calibration curve: 1.35258 * 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	171216G2-9	Standard	0.500	6.06	806.934	11451.849	0.705	0.5	4.2	NO	0.999	NO	MM
2	2	171216G2-10	Standard	1.000	6.06	1468.431	10799.798	1.360	1.0	0.5	NO	0.999	NO	MM
3	3	171216G2-11	Standard	2.000	6.05	3190.886	11191.183	2.851	2.1	5.4	NO	0.999	NO	MM
4	4	171216G2-12	Standard	5.000	6.05	7550.233	10585.336	7.133	5.3	5.5	NO	0.999	NO	MM
5	5	171216G2-13	Standard	10.000	6.05	14967.491	11054.179	13.540	10.0	0.1	NO	0.999	NO	MM
6	6	171216G2-14	Standard	25.000	6.05	33828.637	10660.352	31.733	23.5	-6.2	NO	0.999	NO	MM
7	7	171216G2-15	Standard	50.000	6.05	68746.055	10294.256	66.781	49.4	-1.3	NO	0.999	NO	MM
8	8	171216G2-16	Standard	75.000	6.05	101231.008	9751.885	103.807	76.7	2.3	NO	0.999	NO	MM
9	9	171216G2-17	Standard	100.000	6.04	135919.578	9292.692	146.265	108.1	8.1	NO	0.999	NO	MMX

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: 13C2-PFHxA
Response Factor: 0.430944
RRF SD: 0.0128812, Relative SD: 2.98906
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	171216G2-9	Standard	10.000	3.71	4831.916	11451.849	4.219	9.8	-2.1	NO		NO	bb
2	2	171216G2-10	Standard	10.000	3.70	4918.695	10799.798	4.554	10.6	5.7	NO		NO	bb
3	3	171216G2-11	Standard	10.000	3.70	4636.519	11191.183	4.143	9.6	-3.9	NO		NO	bb
4	4	171216G2-12	Standard	10.000	3.70	4570.420	10585.336	4.318	10.0	0.2	NO		NO	bb
5	5	171216G2-13	Standard	10.000	3.70	4704.054	11054.179	4.255	9.9	-1.3	NO		NO	bb
6	6	171216G2-14	Standard	10.000	3.70	4655.772	10660.352	4.367	10.1	1.3	NO		NO	bd
7	7	171216G2-15	Standard	10.000	3.70	4349.868	10294.256	4.226	9.8	-1.9	NO		NO	bd
8	8	171216G2-16	Standard	10.000	3.70	4283.688	9751.885	4.393	10.2	1.9	NO		NO	bb
9	9	171216G2-17	Standard	10.000	3.69	4342.621	9292.692	4.673	10.8	8.4	NO		NO	bbX

Compound name: 13C2-PFDA
Response Factor: 0.602408
RRF SD: 0.0420449, Relative SD: 6.97947
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	171216G2-9	Standard	10.000	5.25	7830.743	11451.849	6.838	11.4	13.5	NO		NO	bd
2	2	171216G2-10	Standard	10.000	5.24	6802.831	10799.798	6.299	10.5	4.6	NO		NO	bb
3	3	171216G2-11	Standard	10.000	5.24	6514.169	11191.183	5.821	9.7	-3.4	NO		NO	bb
4	4	171216G2-12	Standard	10.000	5.24	6582.097	10585.336	6.218	10.3	3.2	NO		NO	bb
5	5	171216G2-13	Standard	10.000	5.24	6142.107	11054.179	5.556	9.2	-7.8	NO		NO	bb
6	6	171216G2-14	Standard	10.000	5.24	6047.019	10660.352	5.672	9.4	-5.8	NO		NO	bd
7	7	171216G2-15	Standard	10.000	5.23	5914.402	10294.256	5.745	9.5	-4.6	NO		NO	bb
8	8	171216G2-16	Standard	10.000	5.23	5892.646	9751.885	6.043	10.0	0.3	NO		NO	bb
9	9	171216G2-17	Standard	10.000	5.23	5575.048	9292.692	5.999	10.0	-0.4	NO		NO	bbX

Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

Compound name: d5-N-EtFOSAA
Response Factor: 1.20544
RRF SD: 0.0942859, Relative SD: 7.82167
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	171216G2-9	Standard	40.000	5.48	9030.316	7149.723	50.521	41.9	4.8	NO		NO	bdX
2	2	171216G2-10	Standard	40.000	5.48	7815.607	6658.350	46.952	39.0	-2.6	NO		NO	bb
3	3	171216G2-11	Standard	40.000	5.48	7771.687	6472.295	48.030	39.8	-0.4	NO		NO	bd
4	4	171216G2-12	Standard	40.000	5.48	7989.681	6155.667	51.918	43.1	7.7	NO		NO	bb
5	5	171216G2-13	Standard	40.000	5.47	8165.495	6280.129	52.008	43.1	7.9	NO		NO	bb
6	6	171216G2-14	Standard	40.000	5.47	7858.083	6356.821	49.447	41.0	2.5	NO		NO	bd
7	7	171216G2-15	Standard	40.000	5.47	6154.469	5989.695	41.100	34.1	-14.8	NO		NO	bd
8	8	171216G2-16	Standard	40.000	5.47	6846.348	6062.900	45.169	37.5	-6.3	NO		NO	bd
9	9	171216G2-17	Standard	40.000	5.47	6537.074	5115.337	51.117	42.4	6.0	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	171216G2-9	Standard	10.000	4.63	11451.849	11451.849	10.000	10.0	0.0	NO		NO	bb
2	2	171216G2-10	Standard	10.000	4.62	10799.798	10799.798	10.000	10.0	0.0	NO		NO	bb
3	3	171216G2-11	Standard	10.000	4.62	11191.183	11191.183	10.000	10.0	0.0	NO		NO	bb
4	4	171216G2-12	Standard	10.000	4.62	10585.336	10585.336	10.000	10.0	0.0	NO		NO	bb
5	5	171216G2-13	Standard	10.000	4.62	11054.179	11054.179	10.000	10.0	0.0	NO		NO	bb
6	6	171216G2-14	Standard	10.000	4.61	10660.352	10660.352	10.000	10.0	0.0	NO		NO	bb
7	7	171216G2-15	Standard	10.000	4.61	10294.256	10294.256	10.000	10.0	0.0	NO		NO	bb
8	8	171216G2-16	Standard	10.000	4.61	9751.885	9751.885	10.000	10.0	0.0	NO		NO	bd
9	9	171216G2-17	Standard	10.000	4.61	9292.692	9292.692	10.000	10.0	0.0	NO		NO	bbX

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:38:49 Pacific Standard Time

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	171216G2-9	Standard	28.700	5.01	14324.527	14324.527	28.700	28.7	0.0	NO		NO	bdX
2	2	171216G2-10	Standard	28.700	5.01	13534.720	13534.720	28.700	28.7	0.0	NO		NO	bd
3	3	171216G2-11	Standard	28.700	5.01	12926.765	12926.765	28.700	28.7	0.0	NO		NO	bd
4	4	171216G2-12	Standard	28.700	5.00	12919.998	12919.998	28.700	28.7	0.0	NO		NO	bb
5	5	171216G2-13	Standard	28.700	5.00	13292.188	13292.188	28.700	28.7	0.0	NO		NO	bb
6	6	171216G2-14	Standard	28.700	5.00	12276.330	12276.330	28.700	28.7	0.0	NO		NO	bb
7	7	171216G2-15	Standard	28.700	5.00	11391.944	11391.944	28.700	28.7	0.0	NO		NO	bb
8	8	171216G2-16	Standard	28.700	5.00	11655.357	11655.357	28.700	28.7	0.0	NO		NO	bd
9	9	171216G2-17	Standard	28.700	5.00	10737.759	10737.759	28.700	28.7	0.0	NO		NO	bbX

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	171216G2-9	Standard	40.000	5.37	7149.723	7149.723	40.000	40.0	0.0	NO		NO	bd
2	2	171216G2-10	Standard	40.000	5.36	6658.350	6658.350	40.000	40.0	0.0	NO		NO	bb
3	3	171216G2-11	Standard	40.000	5.36	6472.295	6472.295	40.000	40.0	0.0	NO		NO	bd
4	4	171216G2-12	Standard	40.000	5.36	6155.667	6155.667	40.000	40.0	0.0	NO		NO	bd
5	5	171216G2-13	Standard	40.000	5.36	6280.129	6280.129	40.000	40.0	0.0	NO		NO	bd
6	6	171216G2-14	Standard	40.000	5.35	6356.821	6356.821	40.000	40.0	0.0	NO		NO	bd
7	7	171216G2-15	Standard	40.000	5.35	5989.695	5989.695	40.000	40.0	0.0	NO		NO	bb
8	8	171216G2-16	Standard	40.000	5.35	6062.900	6062.900	40.000	40.0	0.0	NO		NO	bb
9	9	171216G2-17	Standard	40.000	5.35	5115.337	5115.337	40.000	40.0	0.0	NO		NO	bbX

Quantify Compound Summary Report

Printed Mon Dec 18 10:27:51 2017

Compound 18: 13C2-PFOA

	#	Name	Type	Std. Con	RT	Area	IS Area	Respons	Primary	Conc.	%Dev	Acq.Date	Acq.Time	Cal.Date	%Rec	RRF	Divisor1	
1	1	171216G2-9	Standard	10	4.63	11452	11452	10	bb	10	0	16-Dec-17	16:07:59	18-Dec-17	100	1	1	
2	2	171216G2-10	Standard	10	4.62	10800	10800	10	bb	10	0	16-Dec-17	16:20:23	18-Dec-17	100	1	1	
3	3	171216G2-11	Standard	10	4.62	11191	11191	10	bb	10	0	16-Dec-17	16:32:48	18-Dec-17	100	1	1	
4	4	171216G2-12	Standard	10	4.62	10585	10585	10	bb	10	0	16-Dec-17	16:45:13	18-Dec-17	100	1	1	
5	5	171216G2-13	Standard	10	4.62	11054	11054	10	bb	10	0	16-Dec-17	16:57:39	18-Dec-17	100	1	1	
6	6	171216G2-14	Standard	10	4.61	10660	10660	10	bb	10	0	16-Dec-17	17:10:07	18-Dec-17	100	1	1	
7	7	171216G2-15	Standard	10	4.61	10294	10294	10	bb	10	0	16-Dec-17	17:22:33	18-Dec-17	100	1	1	
8	8	171216G2-16	Standard	10	4.61	9751.9	9751.9	10	bd	10	0	16-Dec-17	17:35:01	18-Dec-17	100	1	1	
9	9	171216G2-17	Standard	10	4.61	9292.7	9292.7	10	bbX	10	0	16-Dec-17	17:47:29	18-Dec-17	100	1	1	

Compound 18: 13C2-PFOA

RPD	HIGH ARE	11452
	LOW ARE	9752
	RPD %	16.0

INSTRUCTIONS: IN TARGETLYNX, VERIFY YOU ARE USING THE LIST14 DW LAYOUT. RIGHT CLICK ON THE SUMMARY BOX AND SELECT "LIST BY COMPOUND". SELECT 13C2-PFOA, 13C4-PFOS OR D3-NMEFOSAA. CLICK ON EDIT. SELECT COPY CURRENT SUM

Quantify Compound Summary Report

Printed Mon Dec 18 10:29:03 2017

Compound 19: 13C4-PFOS

	#	Name	Type	Std. Con	RT	Area	IS Area	Respons	Primary	Conc.	%Dev	Acq.Date	Acq.Time	Cal.Date	%Rec	RRF	Divisor1	
1	1	171216G2-9	Standard	28.7	5.01	14325	14325	28.7	bdX	28.7	0	16-Dec-17	16:07:59	18-Dec-17	100	1	1	
2	2	171216G2-10	Standard	28.7	5.01	13535	13535	28.7	bd	28.7	0	16-Dec-17	16:20:23	18-Dec-17	100	1	1	
3	3	171216G2-11	Standard	28.7	5.01	12927	12927	28.7	bd	28.7	0	16-Dec-17	16:32:48	18-Dec-17	100	1	1	
4	4	171216G2-12	Standard	28.7	5	12920	12920	28.7	bb	28.7	0	16-Dec-17	16:45:13	18-Dec-17	100	1	1	
5	5	171216G2-13	Standard	28.7	5	13292	13292	28.7	bb	28.7	0	16-Dec-17	16:57:39	18-Dec-17	100	1	1	
6	6	171216G2-14	Standard	28.7	5	12276	12276	28.7	bb	28.7	0	16-Dec-17	17:10:07	18-Dec-17	100	1	1	
7	7	171216G2-15	Standard	28.7	5	11392	11392	28.7	bb	28.7	0	16-Dec-17	17:22:33	18-Dec-17	100	1	1	
8	8	171216G2-16	Standard	28.7	5	11655	11655	28.7	bd	28.7	0	16-Dec-17	17:35:01	18-Dec-17	100	1	1	
9	9	171216G2-17	Standard	28.7	5	10738	10738	28.7	bbX	28.7	0	16-Dec-17	17:47:29	18-Dec-17	100	1	1	

Compound 19: 13C4-PFOS

RPD

HIGH ARE	13535
LOW ARE	11655
RPD %	14.9

INSTRUCTIONS: IN TARGETLYNX, VERIFY YOU ARE USING THE LIST14 DW LAYOUT. RIGHT CLICK ON THE SUMMARY BOX AND SELECT "LIST BY COMPOUND". SELECT 13C2-PFOA, 13C4-PFOS OR D3-NMEFOSAA. CLICK ON EDIT. SELECT COPY CURRENT SUM

Quantify Compound Summary Report

Printed Mon Dec 18 10:30:11 2017

Compound 20: d3-N-MeFOSAA

	#	Name	Type	Std. Con	RT	Area	IS Area	Respons	Primary	Conc.	%Dev	Acq.Date	Acq.Time	Cal.Date	%Rec	RRF	Divisor1	
1	1	171216G2-9	Standard	40	5.37	7149.7	7149.7	40	bd	40	0	16-Dec-17	16:07:59	18-Dec-17	100	1	1	
2	2	171216G2-10	Standard	40	5.36	6658.4	6658.4	40	bb	40	0	16-Dec-17	16:20:23	18-Dec-17	100	1	1	
3	3	171216G2-11	Standard	40	5.36	6472.3	6472.3	40	bd	40	0	16-Dec-17	16:32:48	18-Dec-17	100	1	1	
4	4	171216G2-12	Standard	40	5.36	6155.7	6155.7	40	bd	40	0	16-Dec-17	16:45:13	18-Dec-17	100	1	1	
5	5	171216G2-13	Standard	40	5.36	6280.1	6280.1	40	bd	40	0	16-Dec-17	16:57:39	18-Dec-17	100	1	1	
6	6	171216G2-14	Standard	40	5.35	6356.8	6356.8	40	bd	40	0	16-Dec-17	17:10:07	18-Dec-17	100	1	1	
7	7	171216G2-15	Standard	40	5.35	5989.7	5989.7	40	bb	40	0	16-Dec-17	17:22:33	18-Dec-17	100	1	1	
8	8	171216G2-16	Standard	40	5.35	6062.9	6062.9	40	bb	40	0	16-Dec-17	17:35:01	18-Dec-17	100	1	1	
9	9	171216G2-17	Standard	40	5.35	5115.3	5115.3	40	bbX	40	0	16-Dec-17	17:47:29	18-Dec-17	100	1	1	

Compound 20: d3-N-MeFOSAA

RPD	HIGH ARE	7150
	LOW ARE/	5990
	RPD %	17.7

INSTRUCTIONS: IN TARGETLYNX, VERIFY YOU ARE USING THE LIST14 DW LAYOUT. RIGHT CLICK ON THE SUMMARY BOX AND SELECT "LIST BY COMPOUND". SELECT 13C2-PFOA, 13C4-PFOS OR D3-NMEFOSAA. CLICK ON EDIT. SELECT COPY CURRENT SUM

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, December 18, 2017 10:41:04 Pacific Standard Time
Printed: Monday, December 18, 2017 10:41:31 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L3_1126.mdb 18 Dec 2017 10:00:01
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	171216G2-9	ST171216G2-1 PFC CS-3 537 17L1418	16-Dec-17	16:07:59
2	171216G2-10	ST171216G2-2 PFC CS-2 537 17L1419	16-Dec-17	16:20:23
3	171216G2-11	ST171216G2-3 PFC CS-1 537 17L1420	16-Dec-17	16:32:48
4	171216G2-12	ST171216G2-4 PFC CS0 537 17L1421	16-Dec-17	16:45:13
5	171216G2-13	ST171216G2-5 PFC CS1 537 17L1422	16-Dec-17	16:57:39
6	171216G2-14	ST171216G2-6 PFC CS2 537 17L1423	16-Dec-17	17:10:07
7	171216G2-15	ST171216G2-7 PFC CS3 537 17L1424	16-Dec-17	17:22:33
8	171216G2-16	ST171216G2-8 PFC CS4 537 17L1425	16-Dec-17	17:35:01
9	171216G2-17	ST171216G2-9 PFC CS5 537 17L1426	16-Dec-17	17:47:29
10	171216G2-18	IPA	16-Dec-17	17:59:53
11	171216G2-19	ICV171216G2-1 PFC ICV 537 17L1427	16-Dec-17	18:12:21
12	171216G2-20	IPA	16-Dec-17	18:24:46

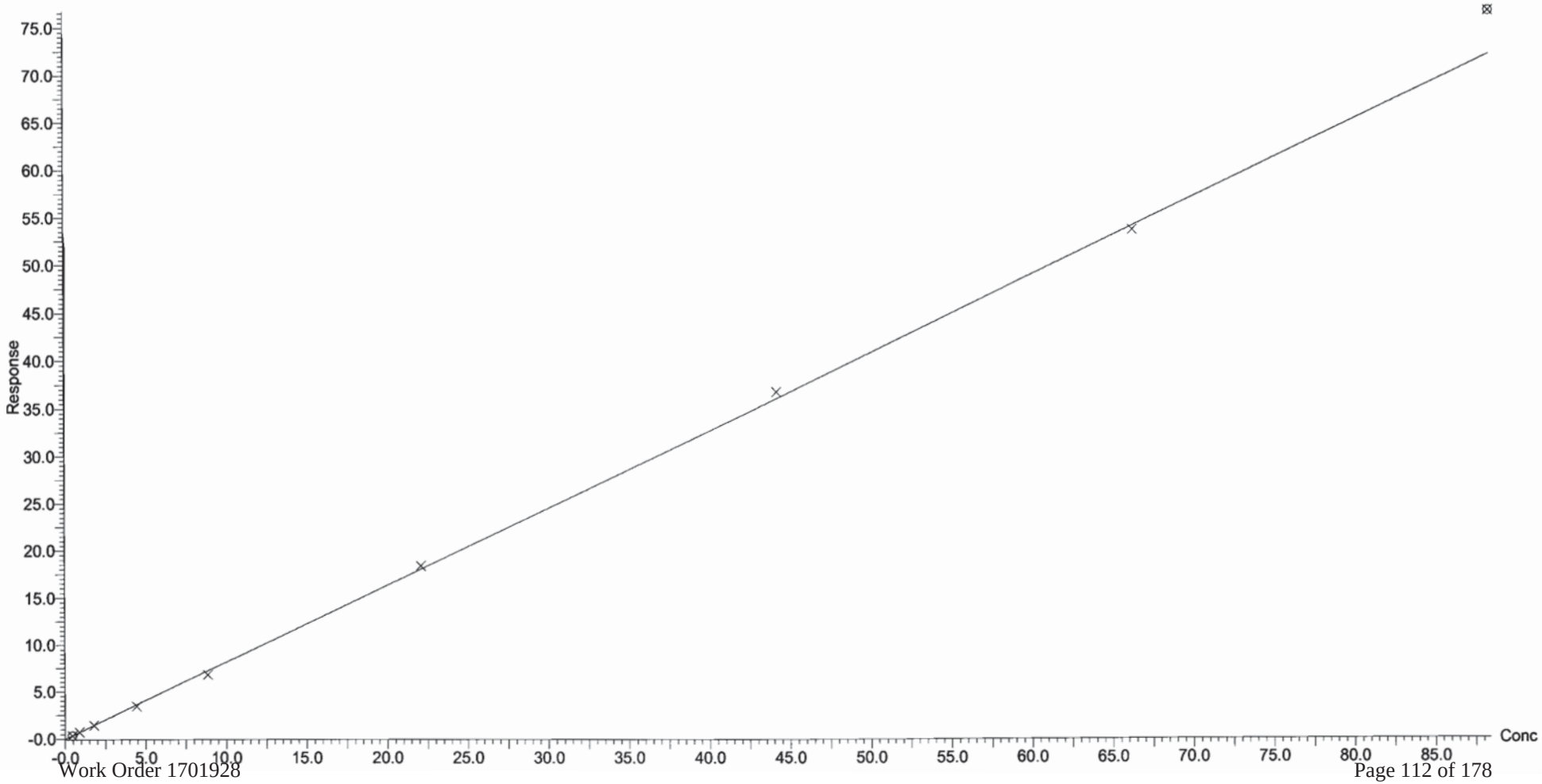
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

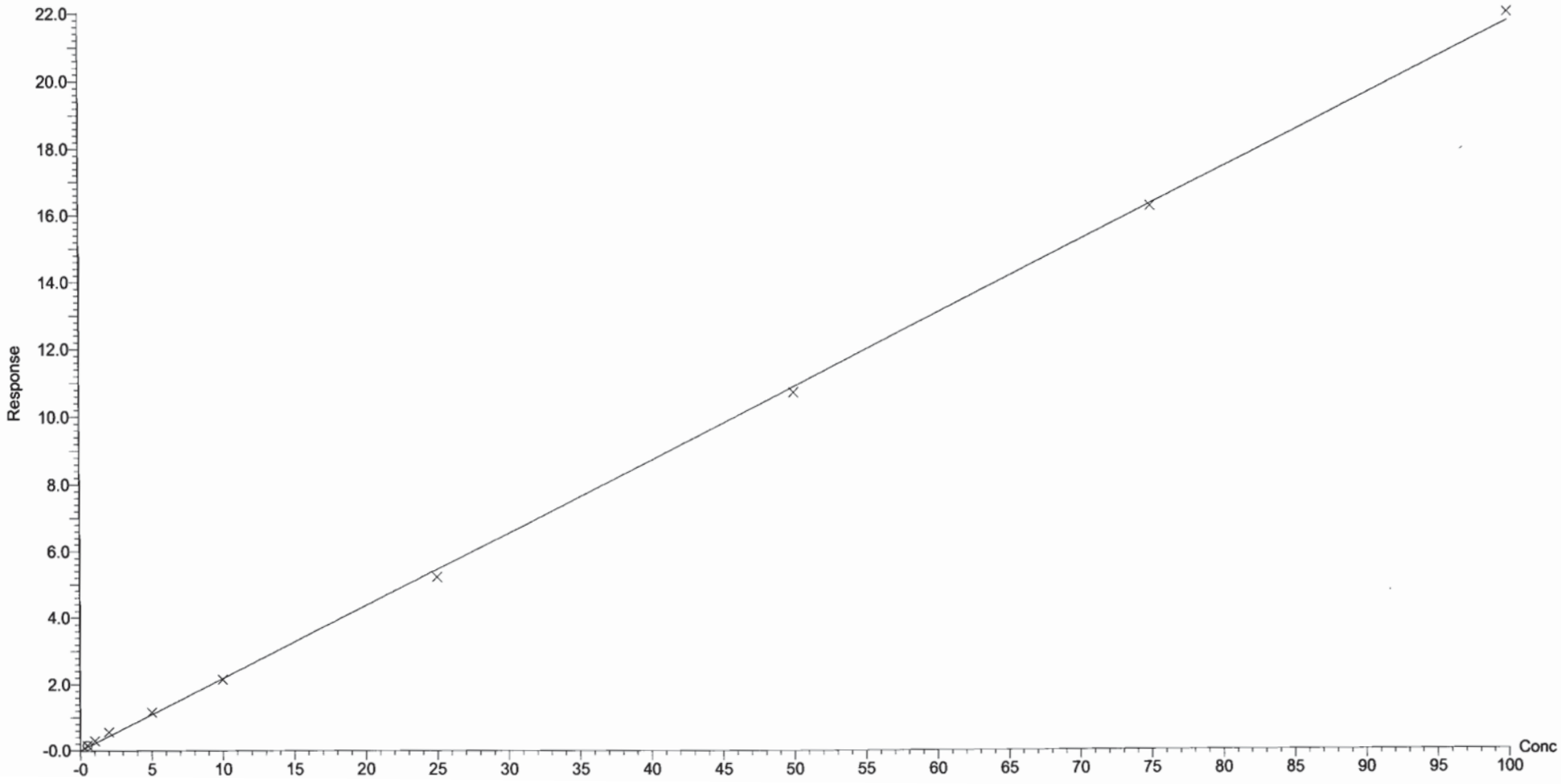
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999463
Calibration curve: 0.815838 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998446
Calibration curve: 0.217604 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

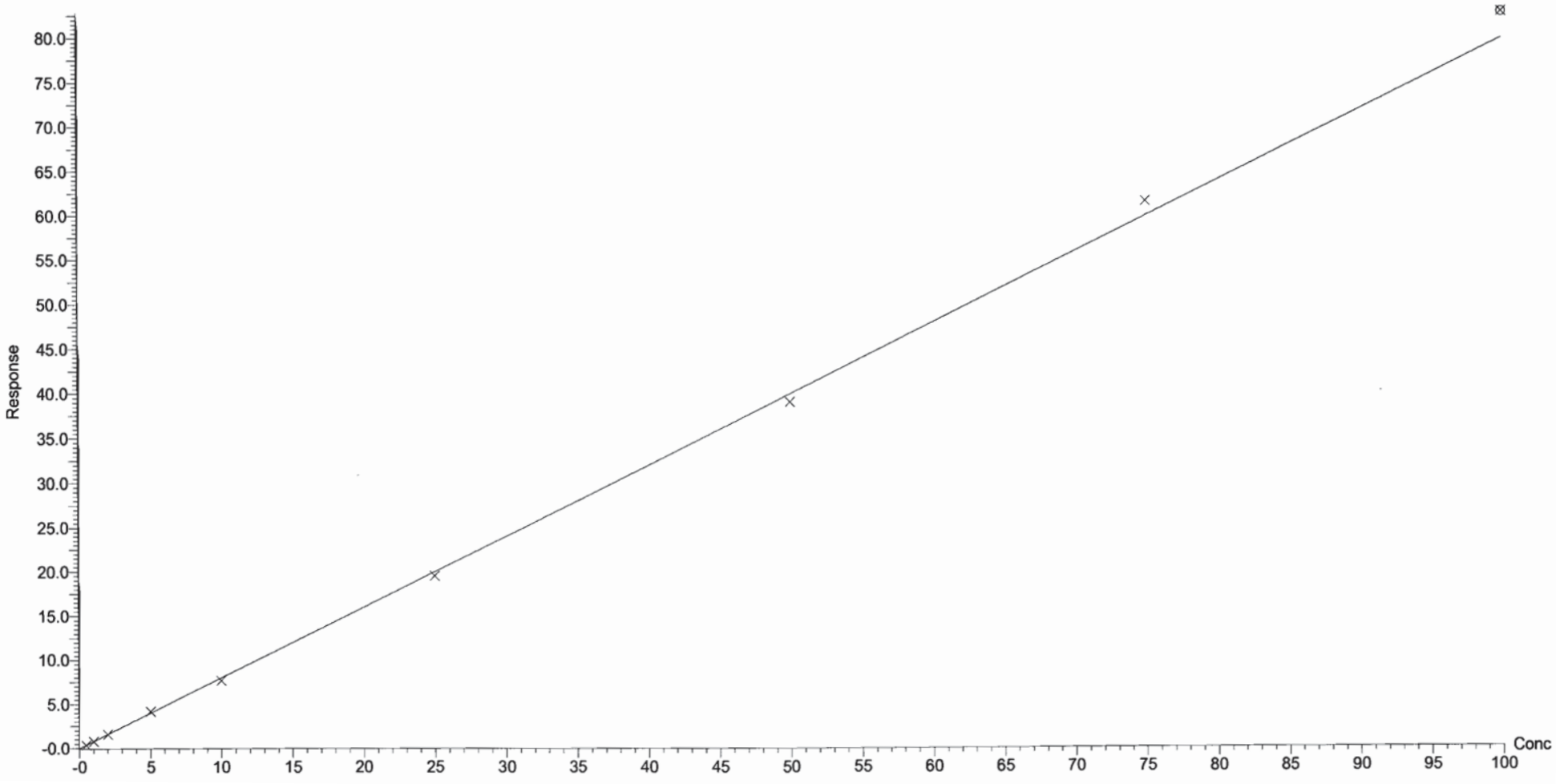


Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

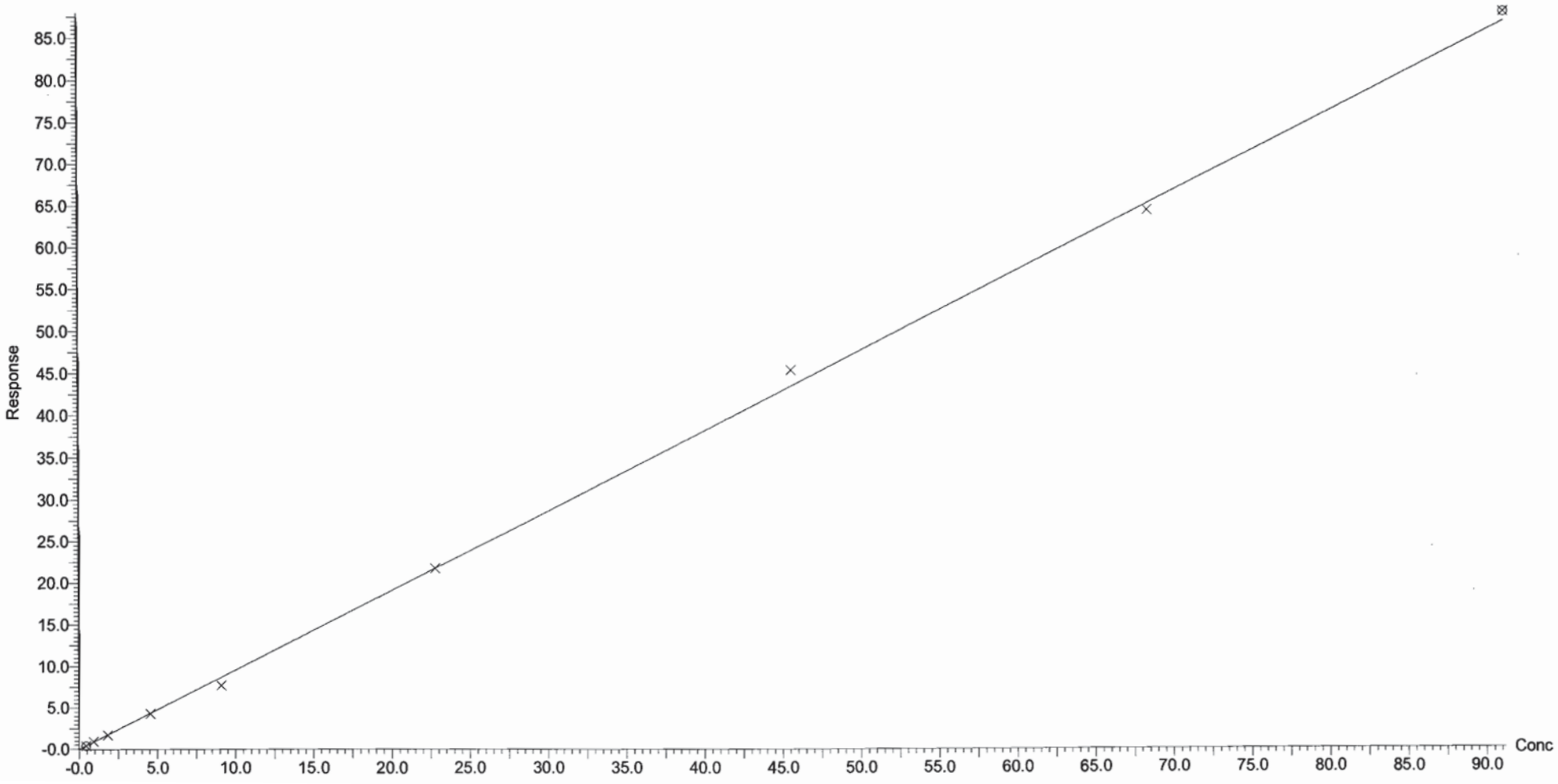
Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999152
Calibration curve: 0.798357 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

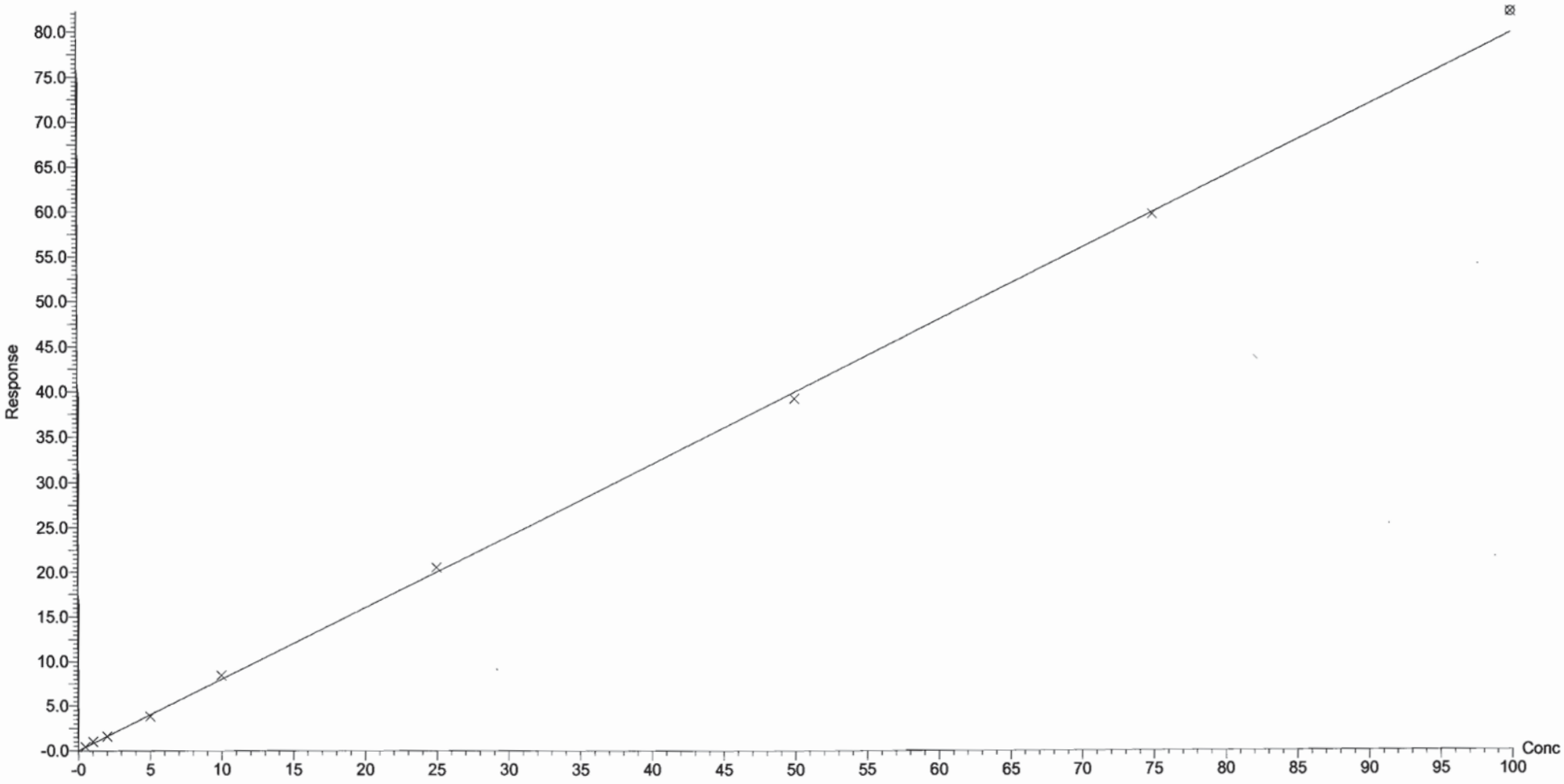
Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998272
Calibration curve: 0.952404 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

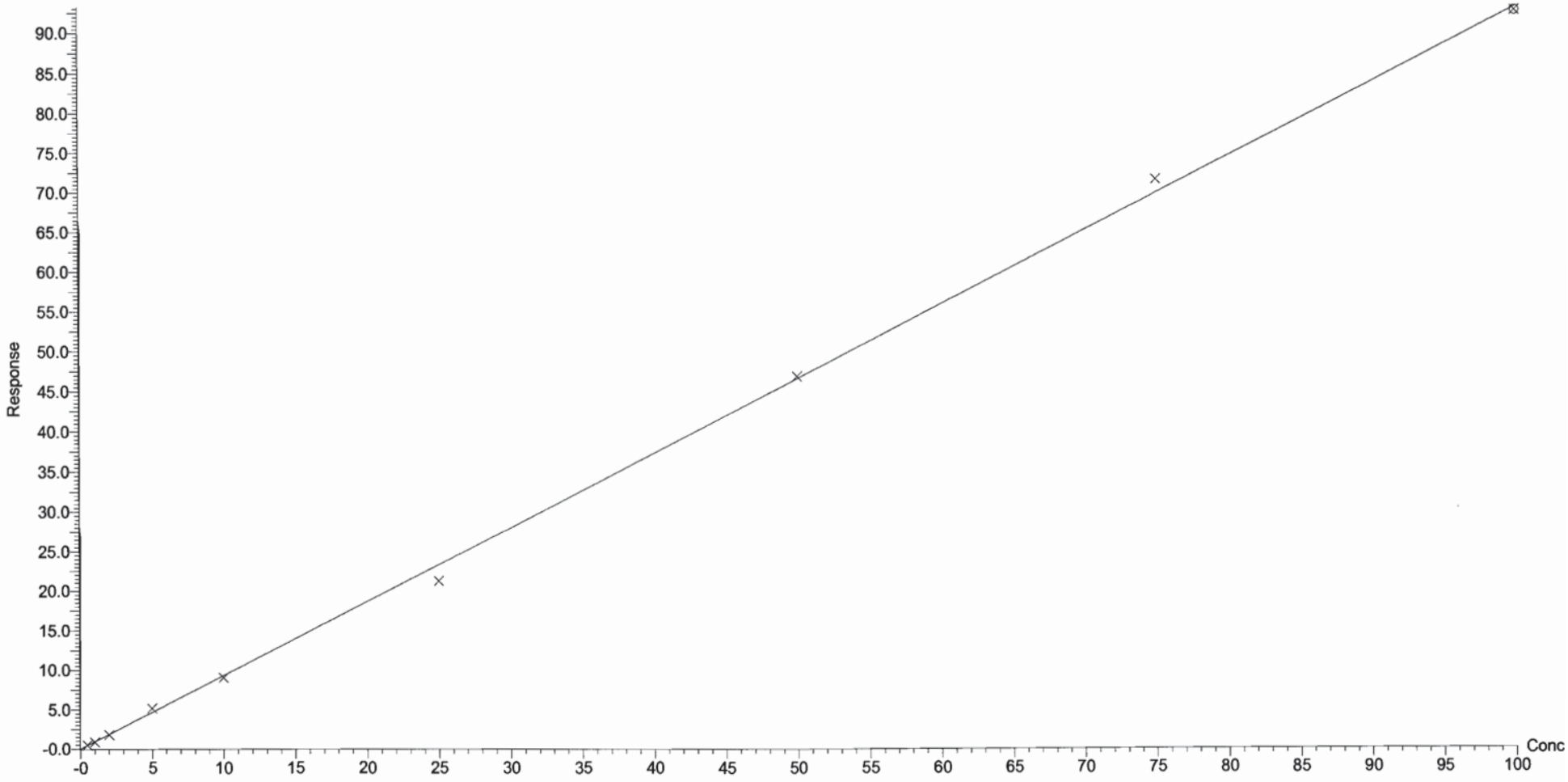
Compound name: PFOA
Coefficient of Determination: R^2 = 0.999126
Calibration curve: 0.798539 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

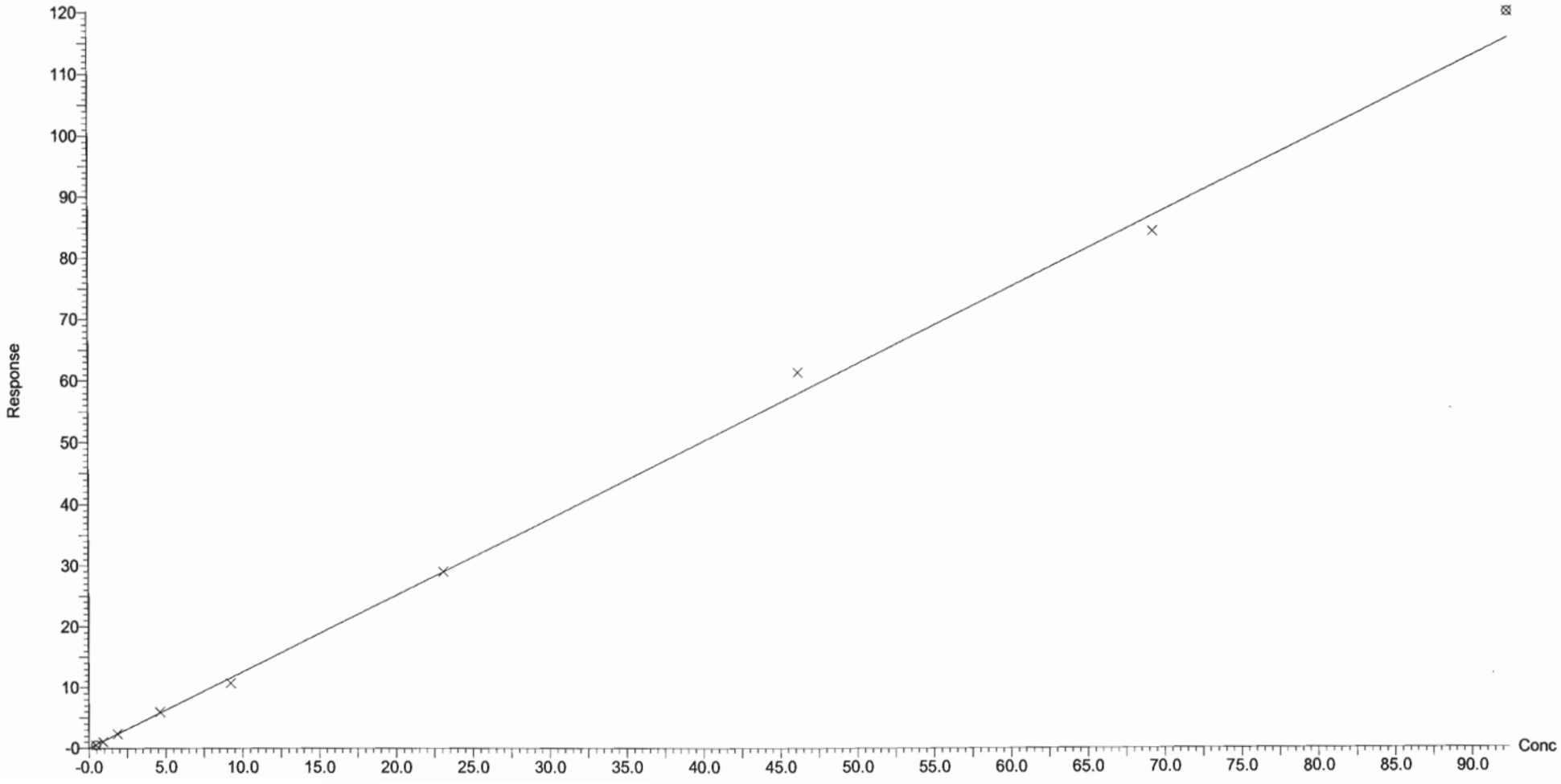
Compound name: PFNA
Coefficient of Determination: R^2 = 0.997983
Calibration curve: 0.931848 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.997754
Calibration curve: 1.25338 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

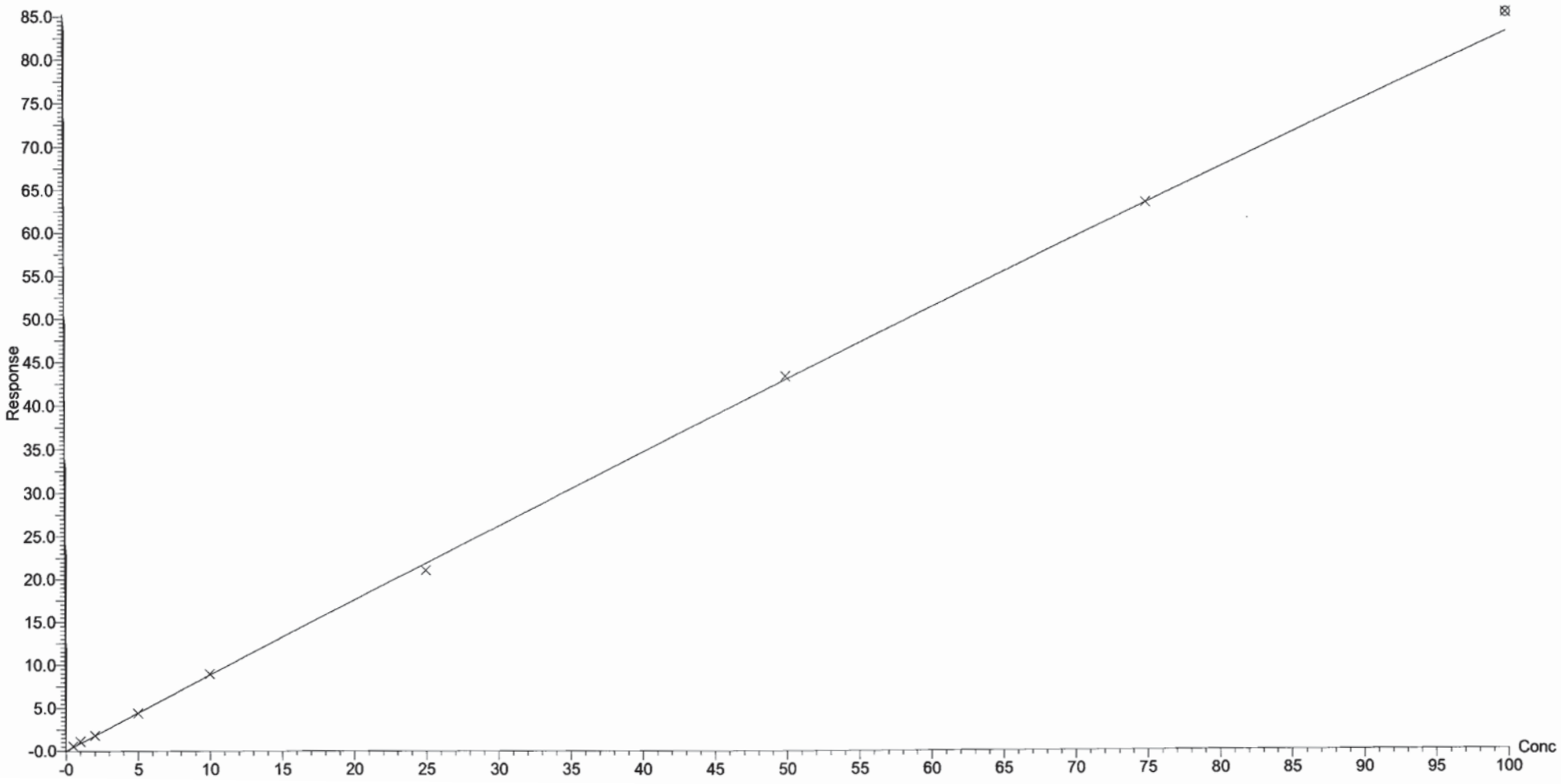


Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

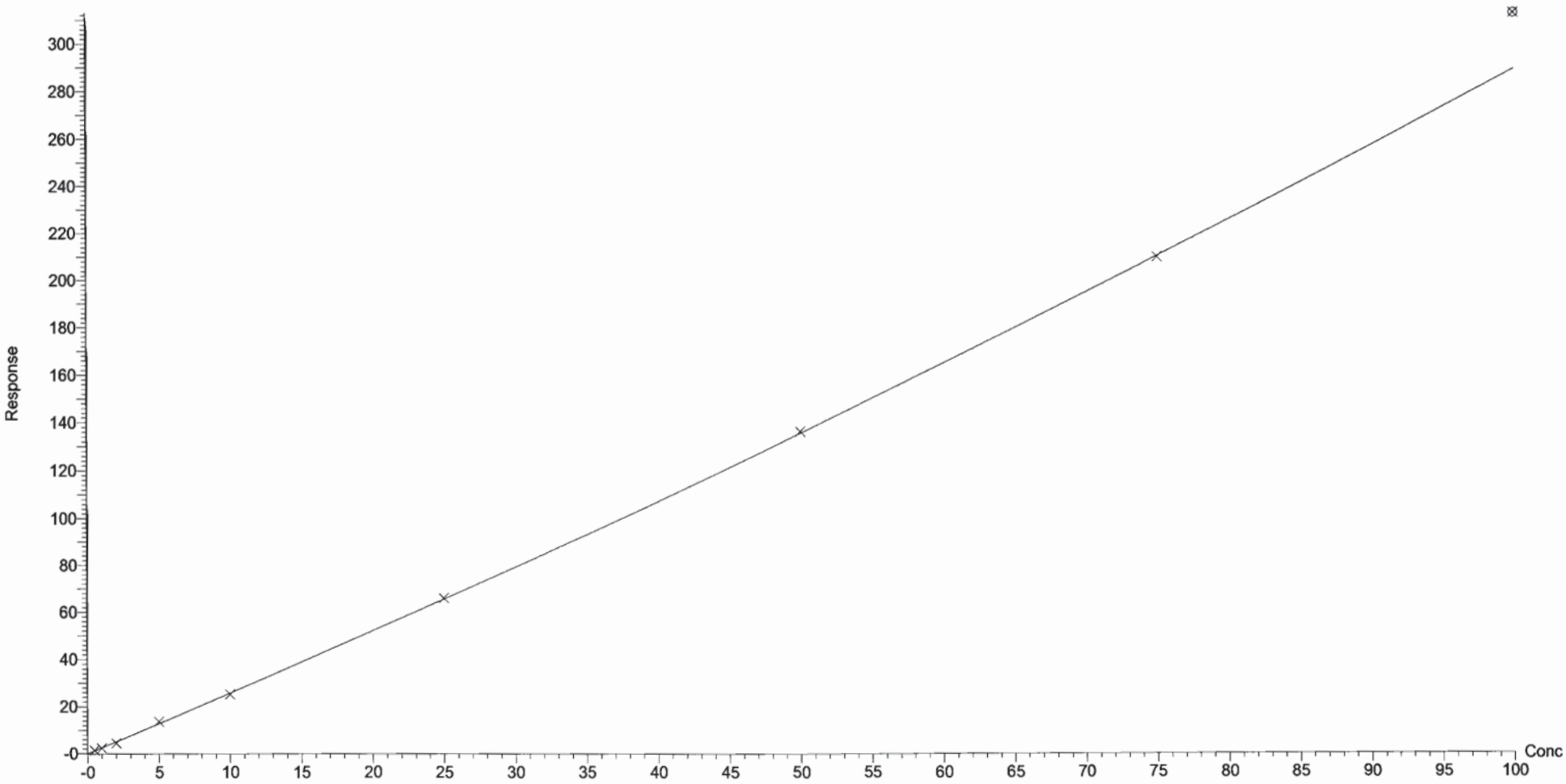
Compound name: PFDA
Coefficient of Determination: R^2 = 0.999050
Calibration curve: -0.000556908 * x^2 + 0.886608 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999604
Calibration curve: 0.00361609 * x^2 + 2.52998 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



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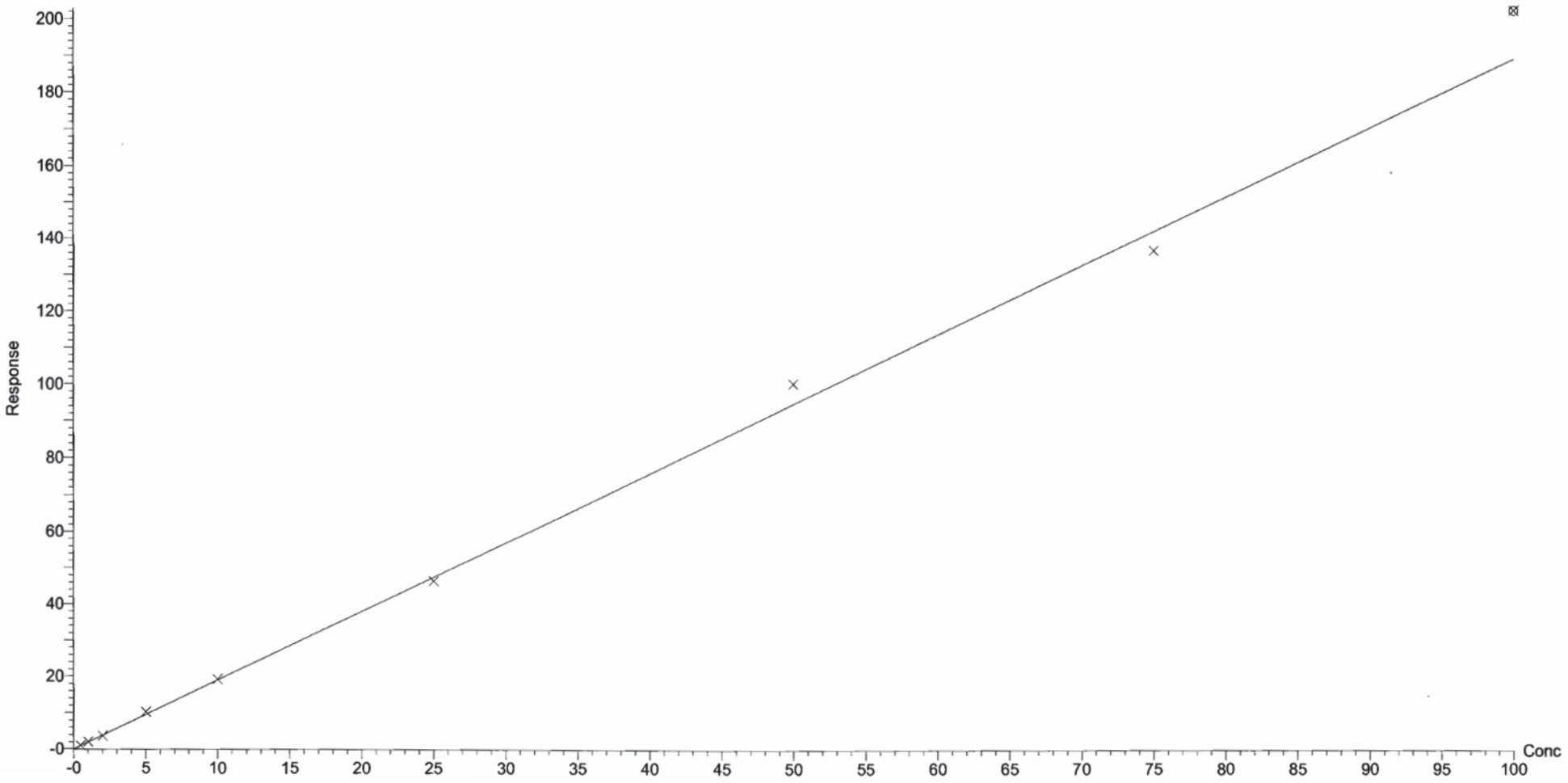
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

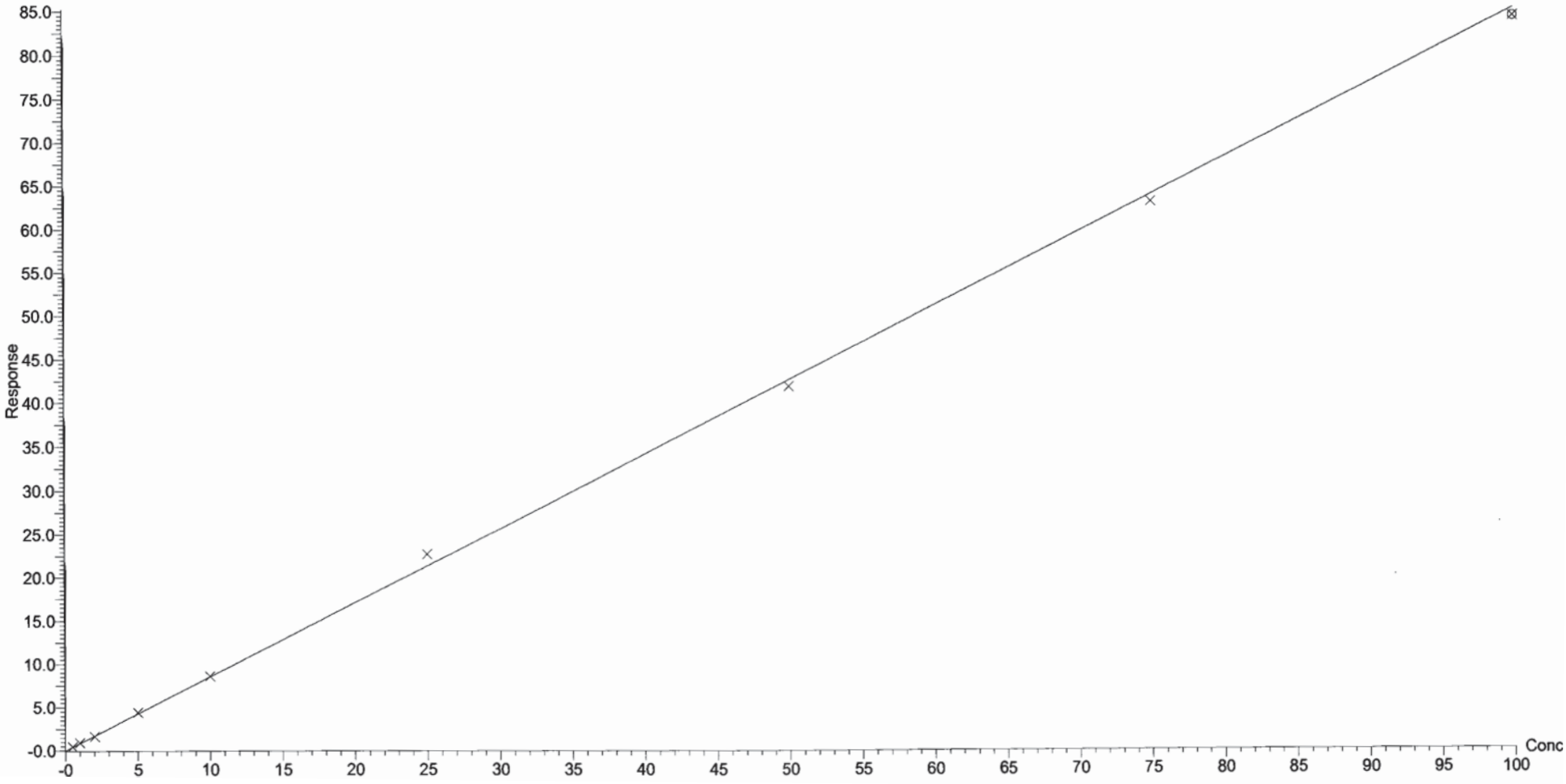
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997900
Calibration curve: 1.89593 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.998998
Calibration curve: 0.852106 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

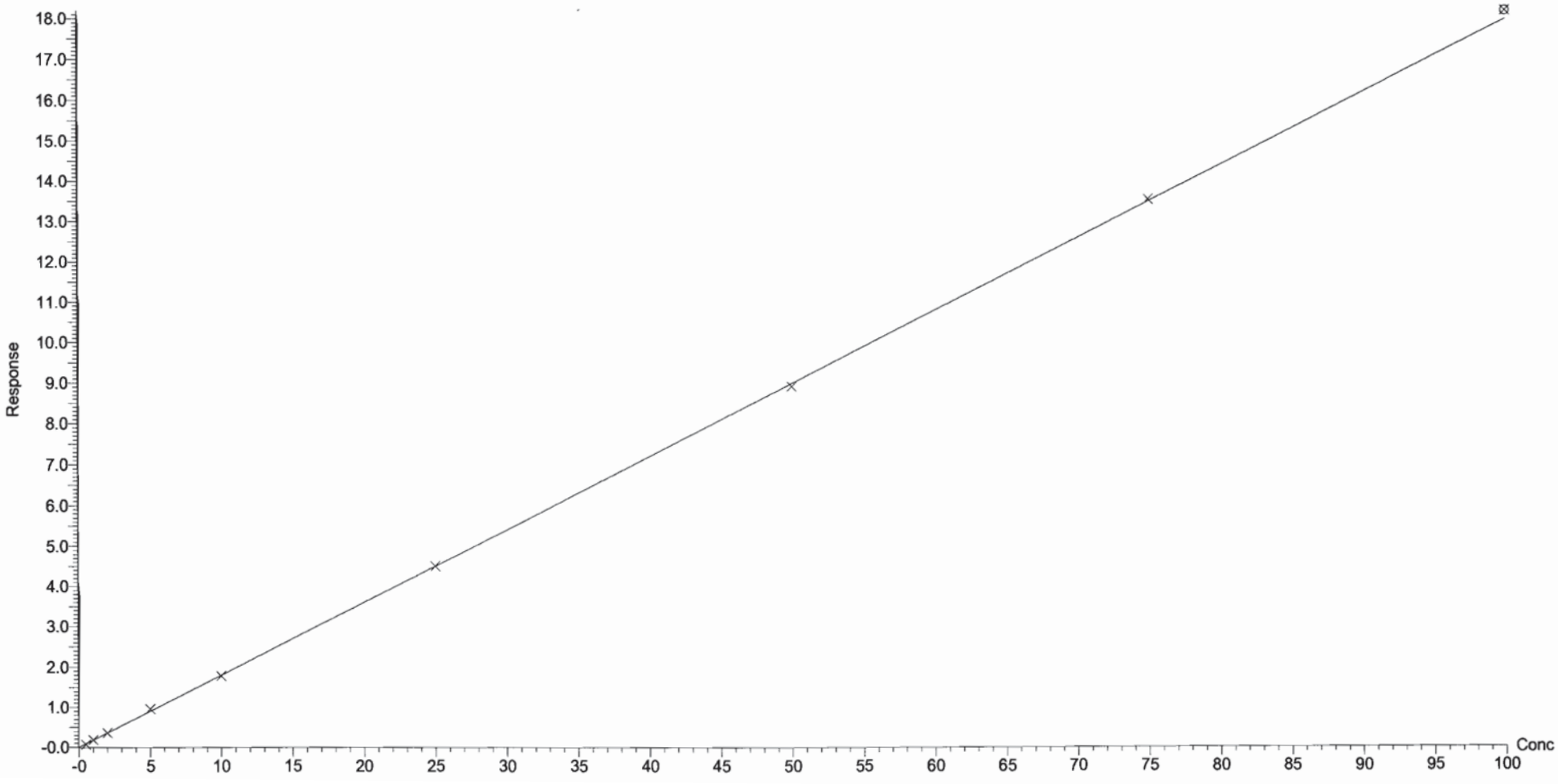


Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

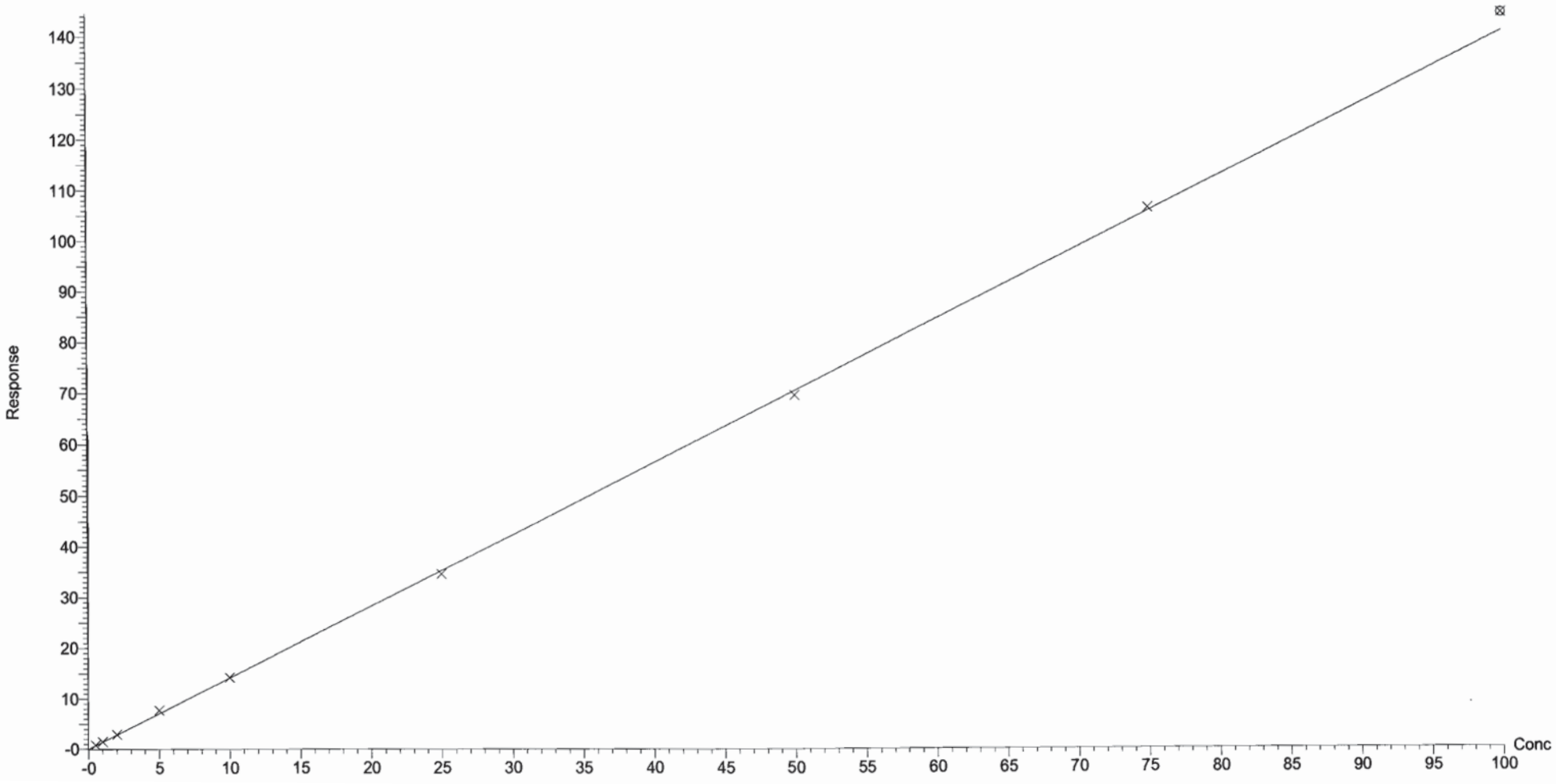
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999658
Calibration curve: 0.179736 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999525
Calibration curve: 1.40909 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

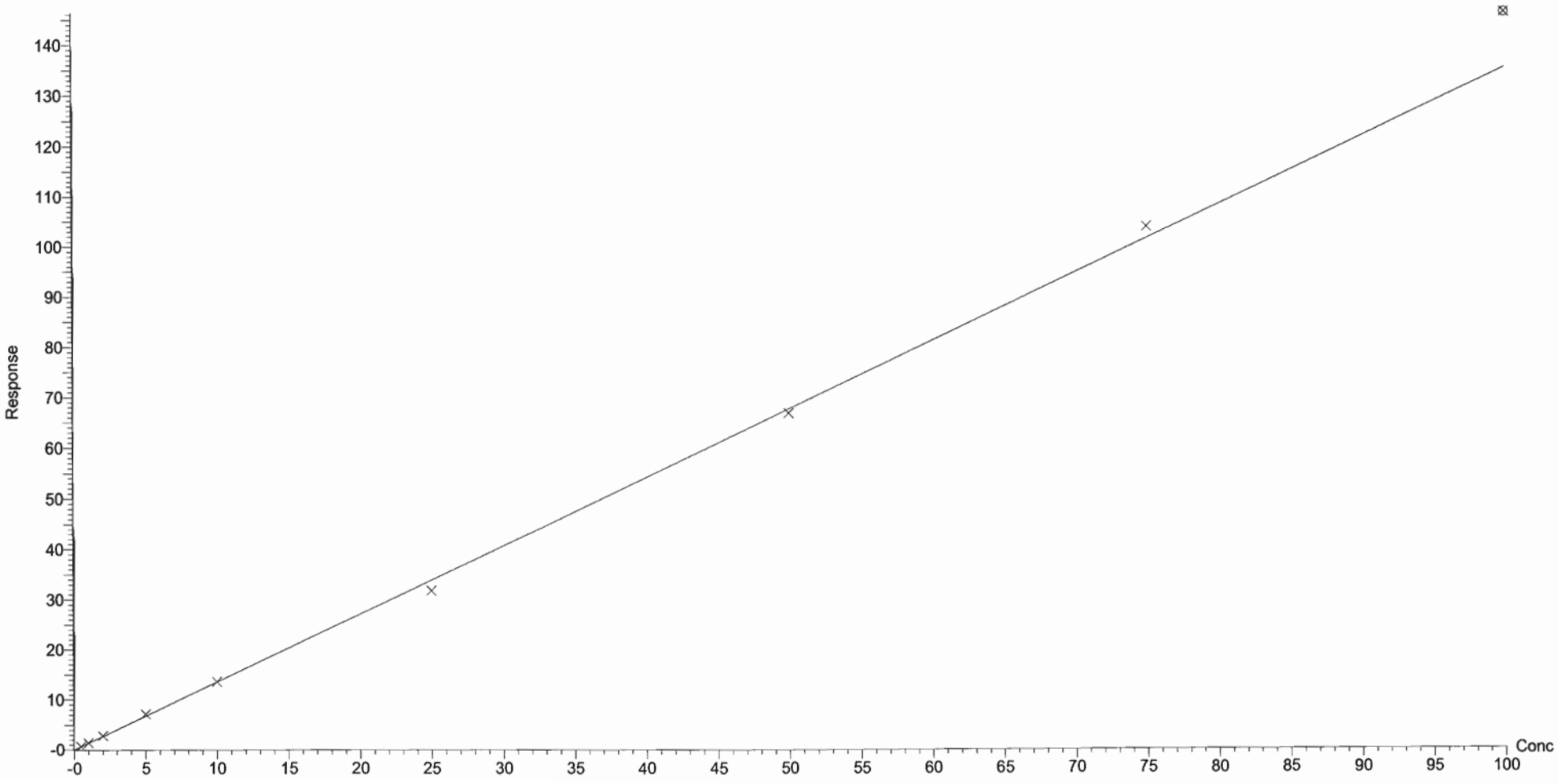


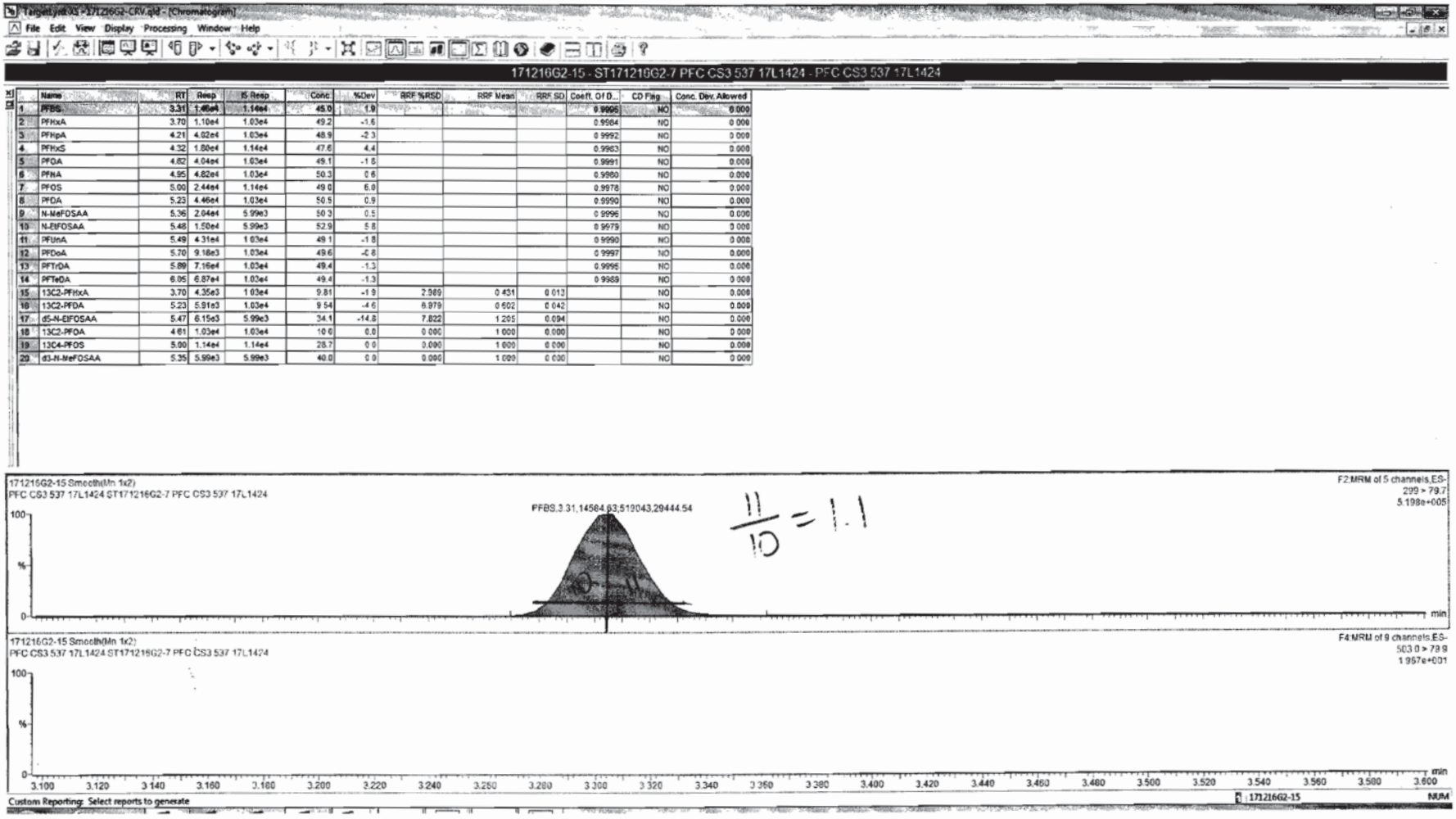
Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

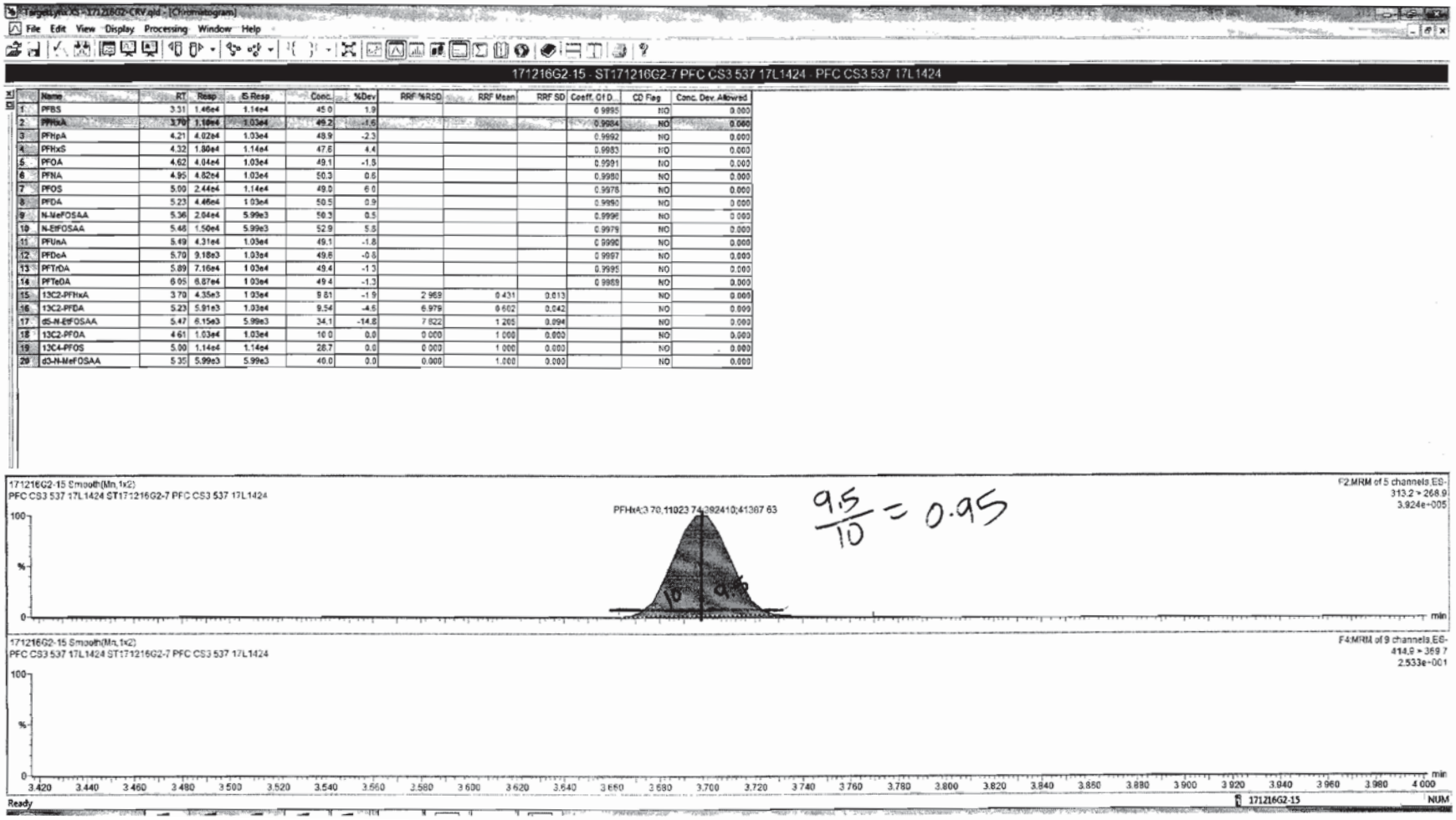
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:36:55 Pacific Standard Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998912
Calibration curve: 1.35258 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None





	Name	RT	Resp	IS Resp	Conc	%Dev	RRF %RSD	RRF Mean	RRF SD	Coeff. Of D...	CD Flag	Conc. Dev. Allowed
1	PFBS	3.31	1.46e4	1.14e4	45.0	1.9				0.9995	NO	0.000
2	PFHxA	3.70	1.10e4	1.03e4	49.2	-1.6				0.9984	NO	0.000
3	PFHpA	4.21	4.02e4	1.03e4	48.9	-2.3				0.9992	NO	0.000
4	PFHxS	4.32	1.80e4	1.14e4	47.6	4.4				0.9983	NO	0.000
5	PFOA	4.82	4.04e4	1.03e4	49.1	-1.8				0.9991	NO	0.000
6	PFNA	4.95	4.82e4	1.03e4	50.3	0.6				0.9980	NO	0.000
7	PFOS	5.00	2.44e4	1.14e4	49.0	6.0				0.9978	NO	0.000
8	PFDA	5.23	4.46e4	1.03e4	50.5	0.9				0.9990	NO	0.000
9	N-MeFOSAA	5.36	2.04e4	5.99e3	50.3	0.5				0.9996	NO	0.000
10	N-EtFOSAA	5.48	1.50e4	5.99e3	52.9	5.8				0.9979	NO	0.000
11	PFUnA	5.49	4.31e4	1.03e4	49.1	-1.8				0.9990	NO	0.000
12	PFDoA	5.70	9.18e3	1.03e4	49.6	-2.8				0.9997	NO	0.000
13	PFTrDA	5.89	7.16e4	1.03e4	49.4	-1.3				0.9995	NO	0.000
14	PFTeDA	6.05	6.87e4	1.03e4	49.4	-1.3				0.9989	NO	0.000
15	13C2-PFHxA	3.70	4.35e3	1.03e4	9.81	-1.9	2.989	0.431	0.013		NO	0.000
16	13C2-PFDA	5.23	5.91e3	1.03e4	9.54	-4.6	6.979	0.602	0.042		NO	0.000
17	d5-N-EtFOSAA	5.47	6.15e3	5.99e3	34.1	-14.8	7.822	1.205	0.094		NO	0.000
18	13C2-PFOA	4.81	1.03e4	1.03e4	10.0	0.0	0.000	1.000	0.000		NO	0.000
19	13C4-PFOS	5.00	1.14e4	1.14e4	28.7	0.0	0.000	1.000	0.000		NO	0.000
20	d3-N-MeFOSAA	5.35	5.99e3	5.99e3	40.0	0.0	0.000	1.000	0.000		NO	0.000



	Name	RT	Resp	IS Resp	Conc.	%Dev	RRF %RSD	RRF Mean	RRF SD	Coeff. Of D.	CD Flag	Conc. Dev. Allowed
1	PFBS	3.31	1.46e4	1.14e4	45.0	1.9				0.9995	NO	0.000
2	PFHxA	3.70	1.18e4	1.03e4	49.2	-1.6				0.9984	NO	0.000
3	PFHpA	4.21	4.02e4	1.03e4	48.9	-2.3				0.9992	NO	0.000
4	PFHxS	4.32	1.80e4	1.14e4	47.6	4.4				0.9983	NO	0.000
5	PFOA	4.62	4.04e4	1.03e4	49.1	-1.5				0.9991	NO	0.000
6	PFNA	4.95	4.82e4	1.03e4	50.3	0.6				0.9990	NO	0.000
7	PFOS	5.00	2.44e4	1.14e4	49.0	6.0				0.9978	NO	0.000
8	PFDA	5.23	4.46e4	1.03e4	50.5	0.9				0.9990	NO	0.000
9	N-MeFOSAA	5.36	2.64e4	5.99e3	50.3	0.5				0.9996	NO	0.000
10	N-EtFOSAA	5.48	1.50e4	5.99e3	52.9	5.8				0.9979	NO	0.000
11	PFUnA	5.49	4.31e4	1.03e4	49.1	-1.8				0.9990	NO	0.000
12	PFDoA	5.70	9.18e3	1.03e4	49.8	-0.6				0.9997	NO	0.000
13	PFTrDA	5.89	7.16e4	1.03e4	49.4	-1.3				0.9995	NO	0.000
14	PFTeDA	6.05	6.87e4	1.03e4	49.4	-1.3				0.9989	NO	0.000
15	13C2-PFHxA	3.70	4.35e3	1.03e4	9.81	-1.9	2.969	9.431	0.613		NO	0.000
16	13C2-PFDA	5.23	5.91e3	1.03e4	9.54	-4.6	6.979	9.602	0.042		NO	0.000
17	d5-N-EtFOSAA	5.47	6.15e3	5.99e3	34.1	-14.8	7.822	1.205	0.094		NO	0.000
18	13C2-PFOA	4.61	1.03e4	1.03e4	10.0	0.0	0.000	1.000	0.000		NO	0.000
19	13C4-PFOS	5.00	1.14e4	1.14e4	26.7	0.0	0.000	1.000	0.000		NO	0.000
20	d3-N-MeFOSAA	5.35	5.99e3	5.99e3	40.0	0.0	0.000	1.000	0.000		NO	0.000

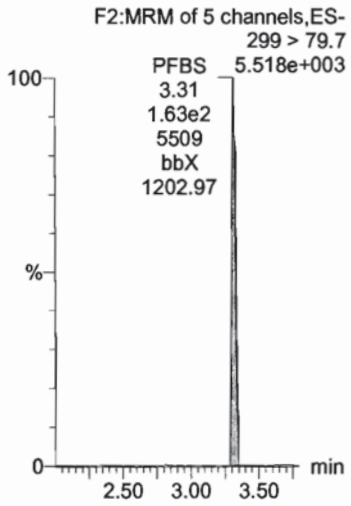
Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

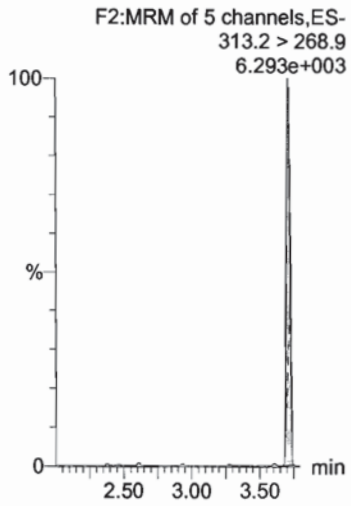
Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: 18 Dec 2017 10:33:08

Name: 171216G2-9, Date: 16-Dec-2017, Time: 16:07:59, ID: ST171216G2-1 PFC CS-3 537 17L1418, Description: PFC CS-3 537 17L1418

PFBS



PFHxA



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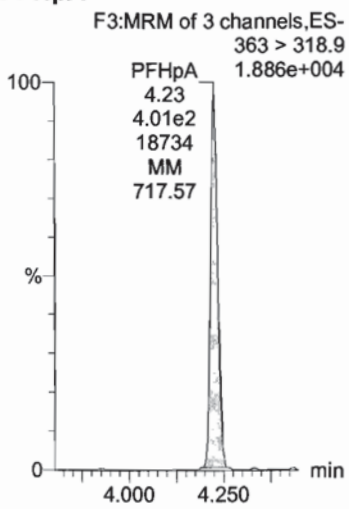

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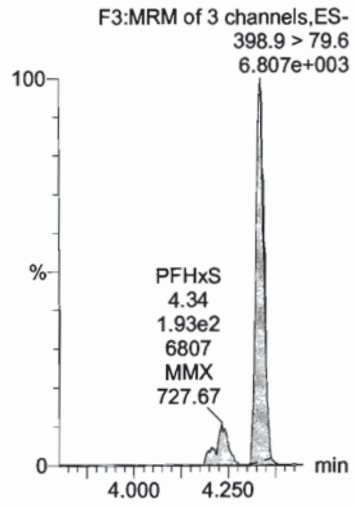

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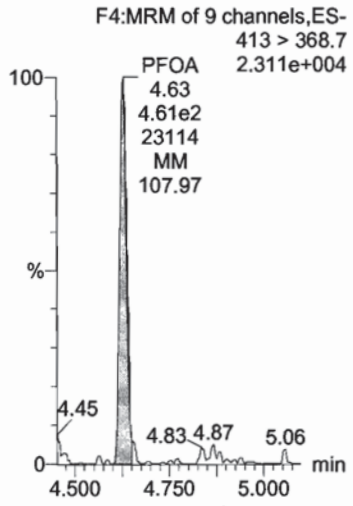

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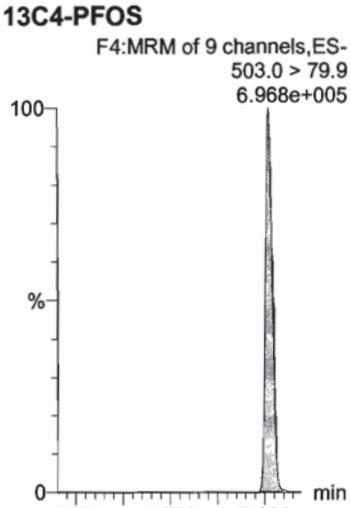

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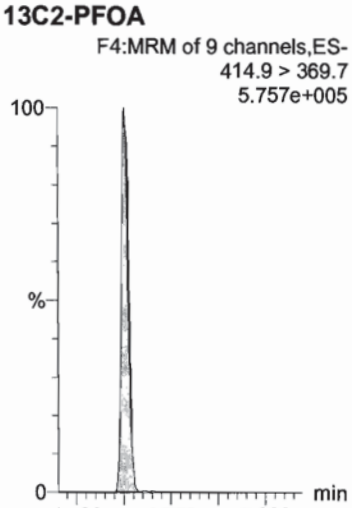

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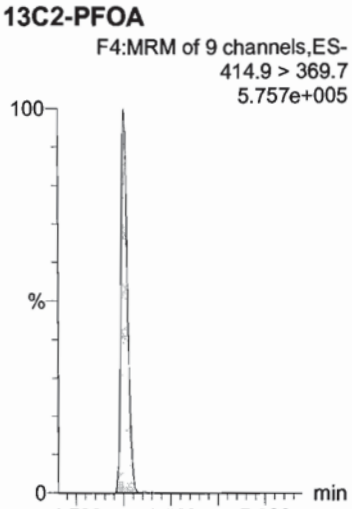

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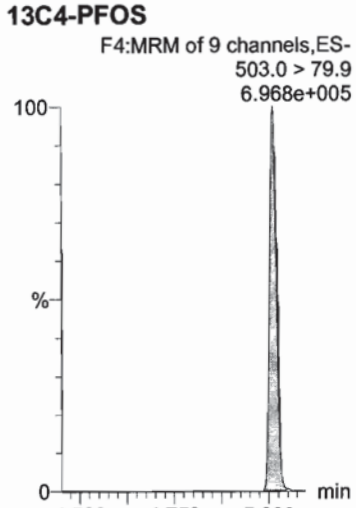

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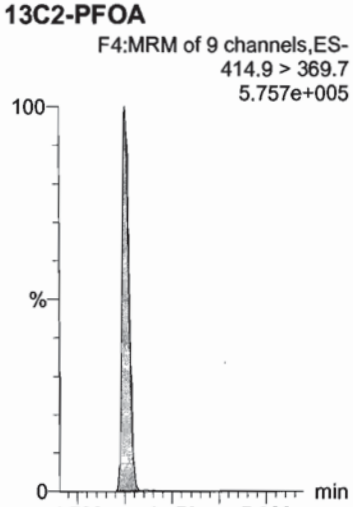

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Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-9, Date: 16-Dec-2017, Time: 16:07:59, ID: ST171216G2-1 PFC CS-3 537 17L1418, Description: PFC CS-3 537 17L1418

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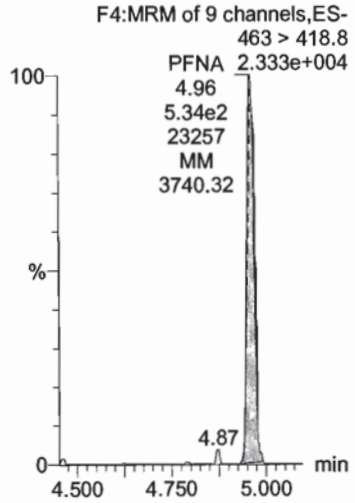

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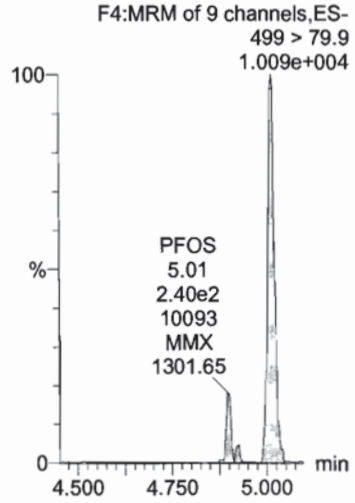

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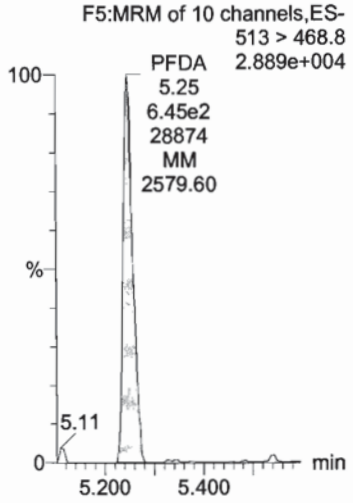
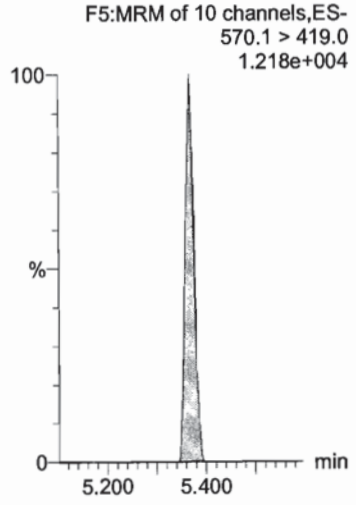
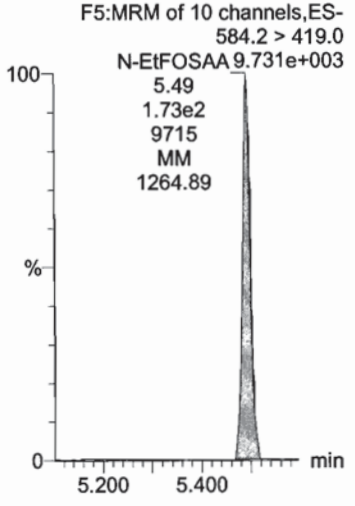


N-MeFOSAA



N-EtFOSAA



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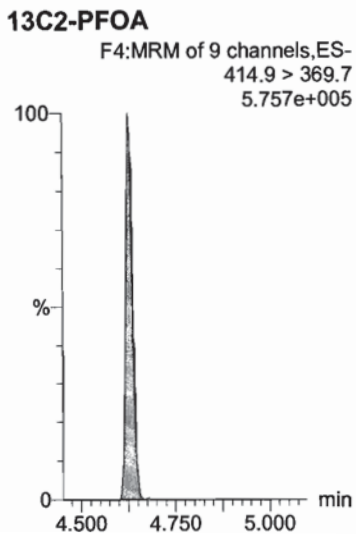

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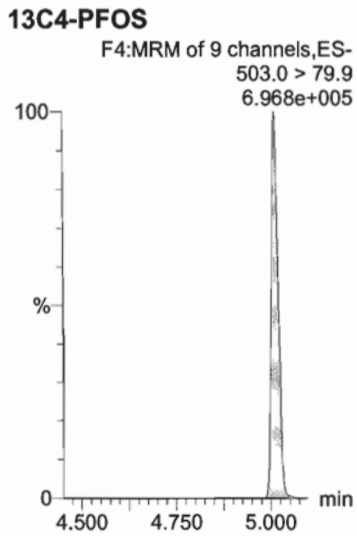

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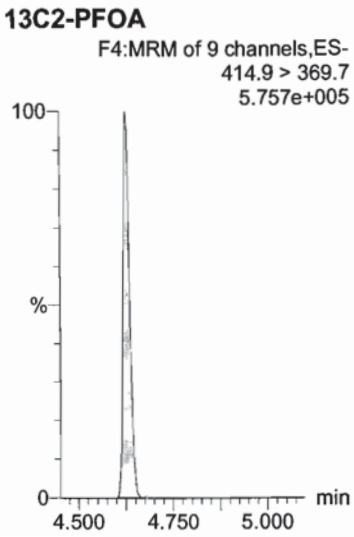
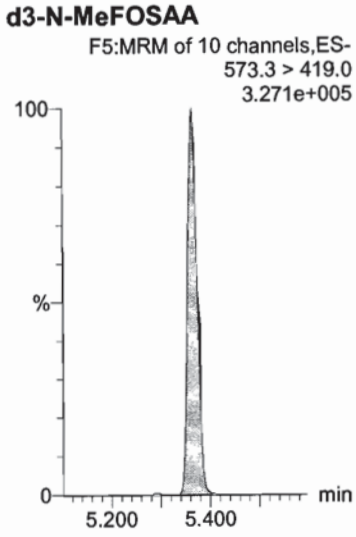


d3-N-MeFOSAA



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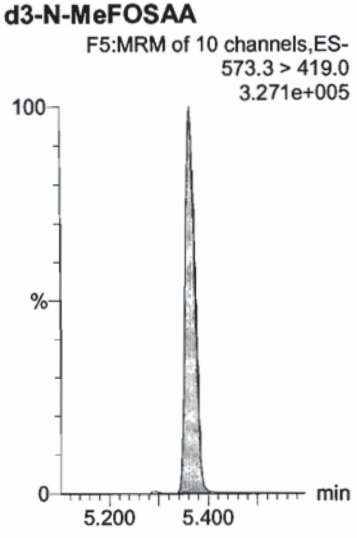

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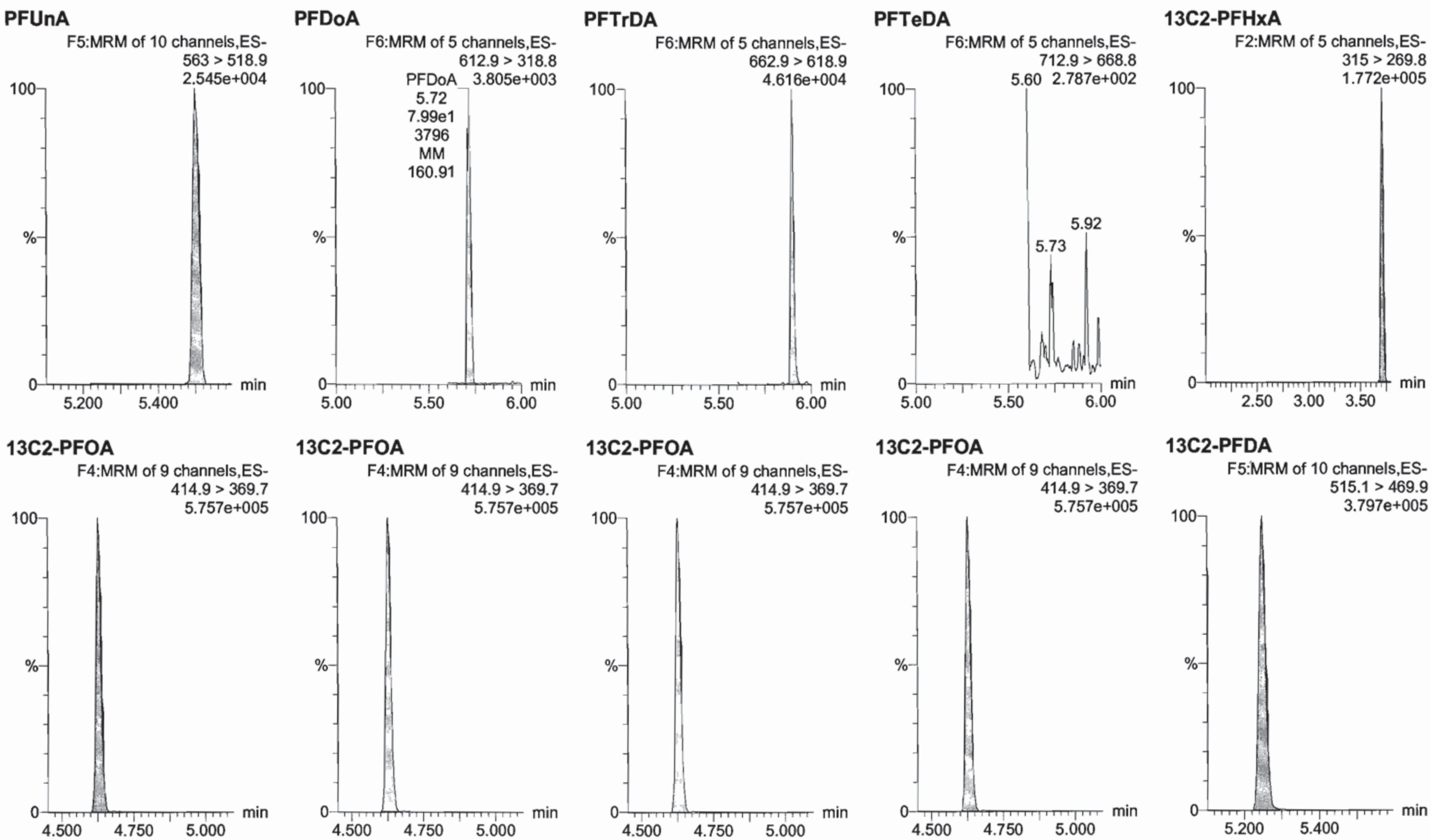
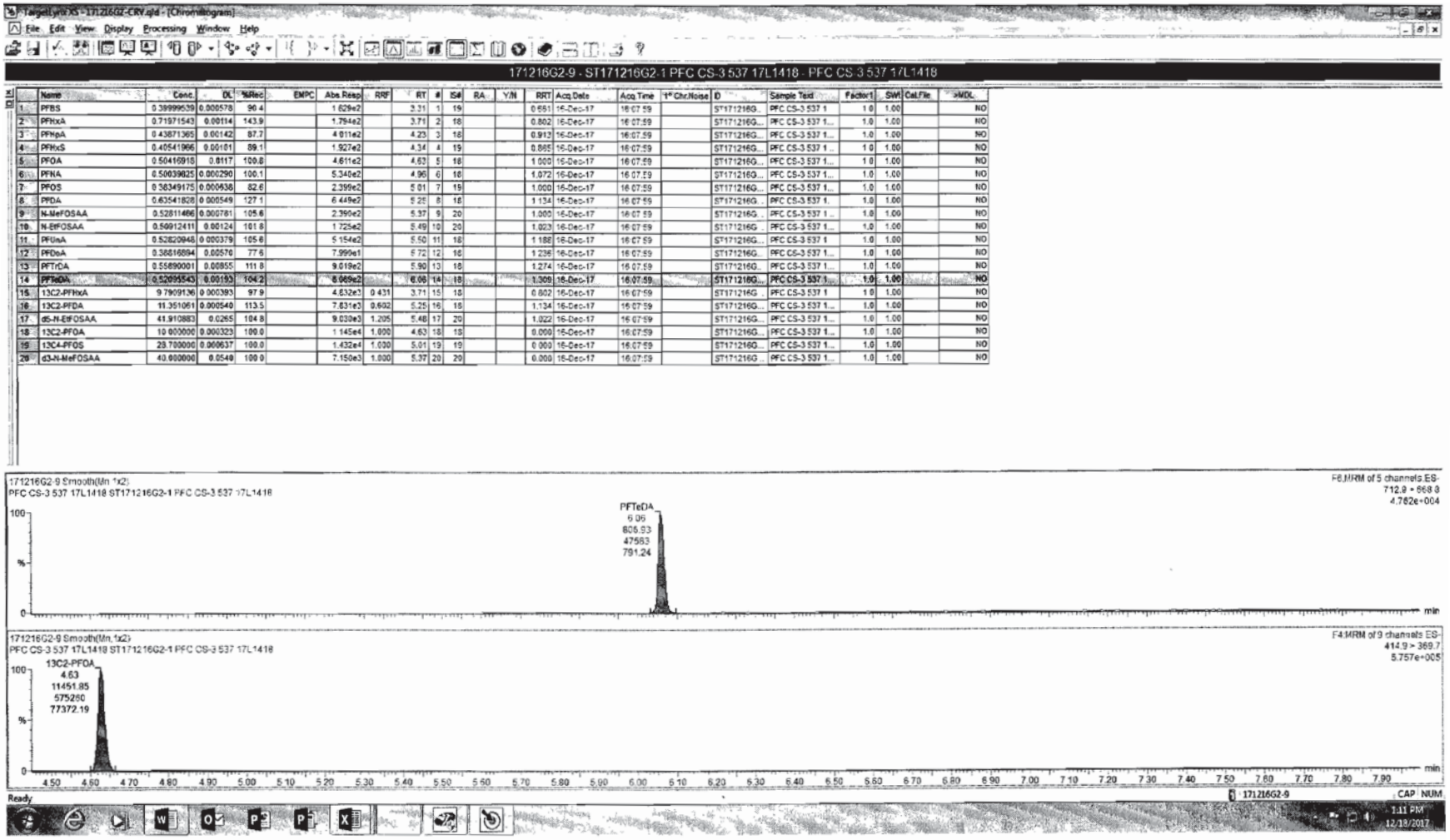
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-9, Date: 16-Dec-2017, Time: 16:07:59, ID: ST171216G2-1 PFC CS-3 537 17L1418, Description: PFC CS-3 537 17L1418





	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1st Chr.Noise	ID	Sample Text	Factor1	SW	Cal.File	>MDL
1	PFBS	0.39999539	0.000578	90.4		1.629e2		3.31	1	19			0.661	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1	1.0	1.00		NO
2	PFHxA	0.71971543	0.00114	143.9		1.794e2		3.71	2	18			0.802	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
3	PFHpA	0.43871365	0.00142	87.7		4.011e2		4.23	3	18			0.913	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
4	PFHxS	0.40541966	0.00101	89.1		1.927e2		4.34	4	19			0.865	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
5	PFOA	0.50416918	0.0117	109.8		4.611e2		4.63	5	18			1.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
6	PFNA	0.50039025	0.000290	100.1		5.340e2		4.96	6	18			1.072	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
7	PFOS	0.38349175	0.000938	82.6		2.399e2		5.01	7	19			1.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
8	PFDA	0.63541808	0.000549	127.1		6.449e2		5.25	8	18			1.134	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1.	1.0	1.00		NO
9	N-MeFOSAA	0.52811466	0.000781	105.6		2.399e2		5.37	9	20			1.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
10	N-EtFOSAA	0.59912411	0.00124	101.8		1.725e2		5.49	10	20			1.023	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
11	PFUnA	0.52820948	0.000379	105.6		5.154e2		5.50	11	18			1.188	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1	1.0	1.00		NO
12	PFDoA	0.38816894	0.00570	77.6		7.999e1		5.72	12	18			1.236	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
13	PFTrDA	0.55890001	0.00855	111.8		9.019e2		5.90	13	18			1.274	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
14	PFTeDA	0.52095543	0.00193	104.2		8.969e2		6.06	14	18			1.309	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
15	13C2-PFHxA	9.7909136	0.000393	97.9		4.632e3	0.431	3.71	15	18			0.802	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1	1.0	1.00		NO
16	13C2-PFDA	11.351061	0.000540	113.5		7.631e3	0.692	5.25	16	18			1.134	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
17	d5-N-EtFOSAA	41.910883	0.0265	104.8		9.030e3	1.205	5.48	17	20			1.022	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.000323	100.0		1.145e4	1.000	4.63	18	18			0.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.000637	100.0		1.432e4	1.000	5.01	19	19			0.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0540	100.0		7.150e3	1.000	5.37	20	20			0.000	16-Dec-17	16:07:59		ST171216G...	PFC CS-3 537 1...	1.0	1.00		NO

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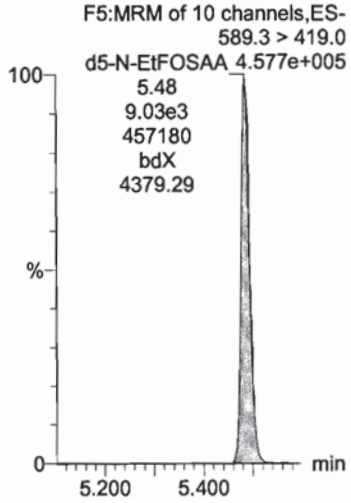
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-9, Date: 16-Dec-2017, Time: 16:07:59, ID: ST171216G2-1 PFC CS-3 537 17L1418, Description: PFC CS-3 537 17L1418

d5-N-EtFOSAA



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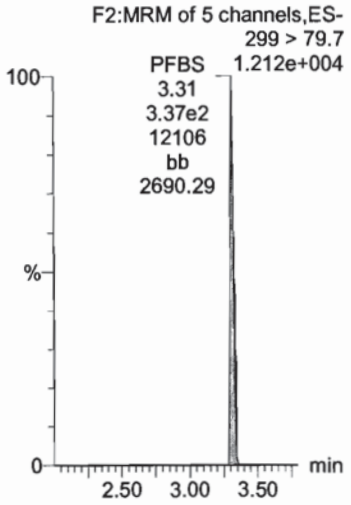
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-10, Date: 16-Dec-2017, Time: 16:20:23, ID: ST171216G2-2 PFC CS-2 537 17L1419, Description: PFC CS-2 537 17L1419

PFBS



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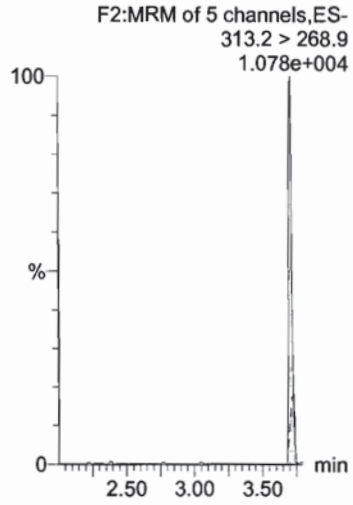

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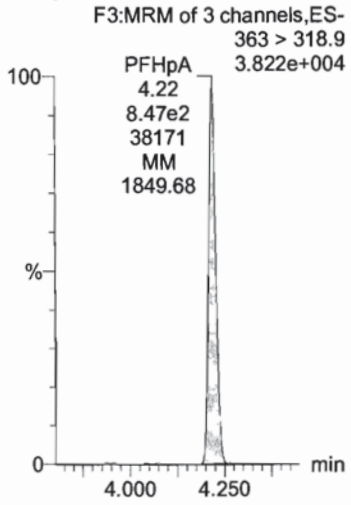

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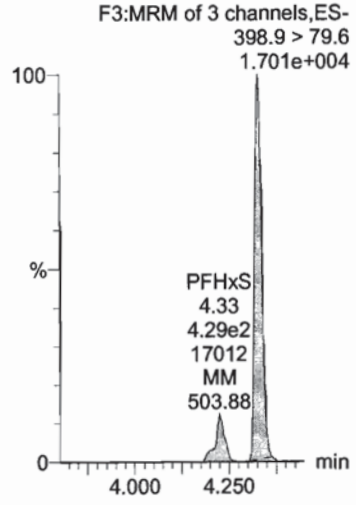

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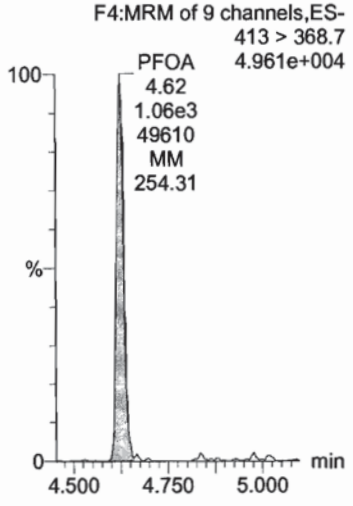

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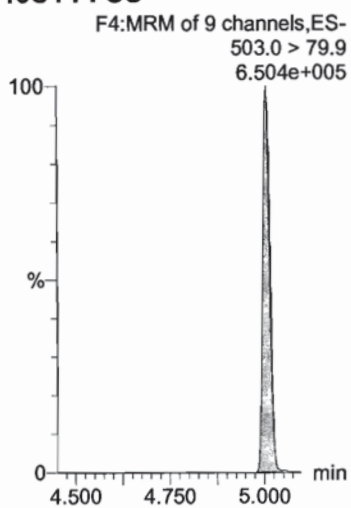

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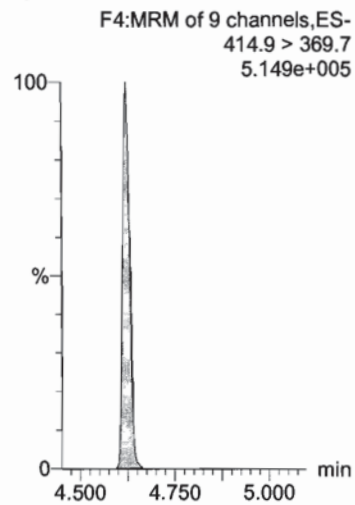

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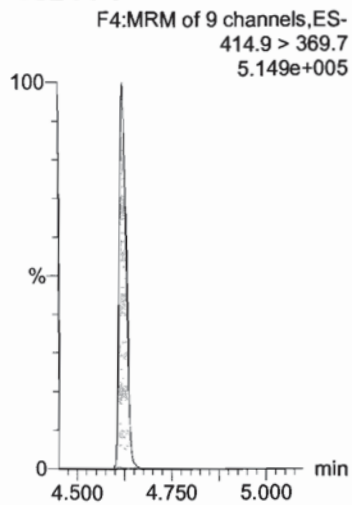

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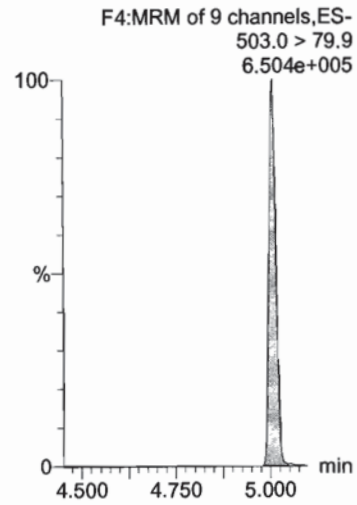

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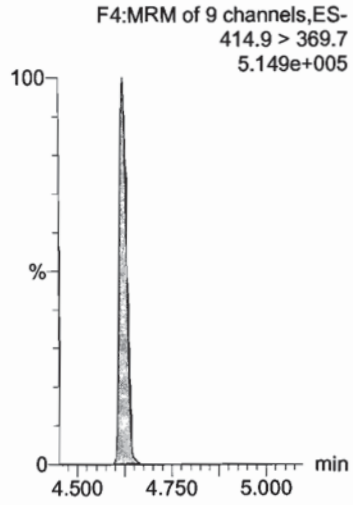

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Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-10, Date: 16-Dec-2017, Time: 16:20:23, ID: ST171216G2-2 PFC CS-2 537 17L1419, Description: PFC CS-2 537 17L1419

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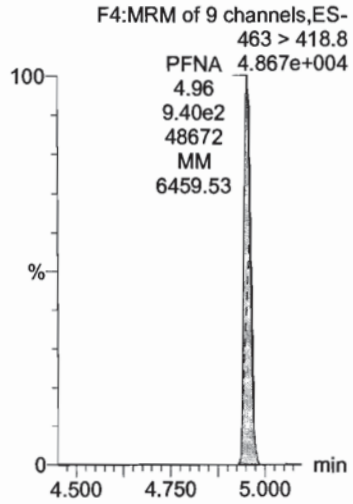

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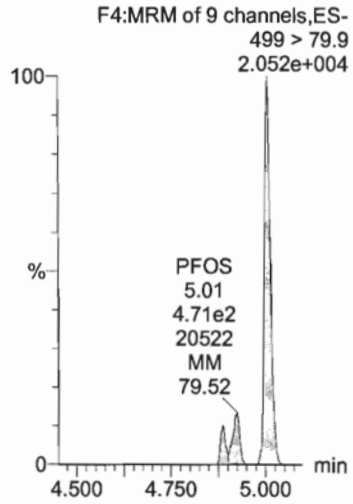

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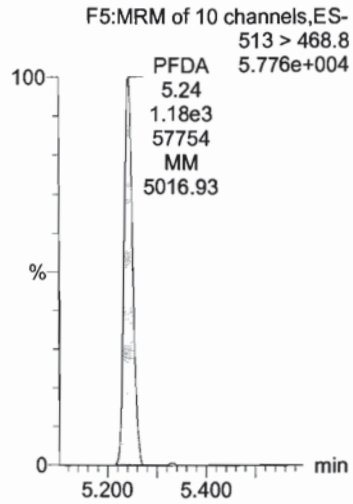

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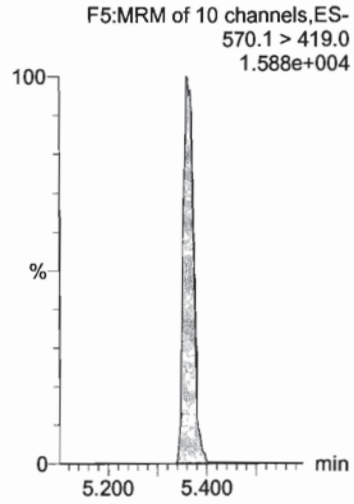

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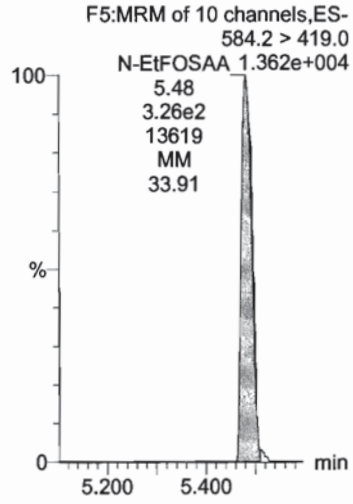

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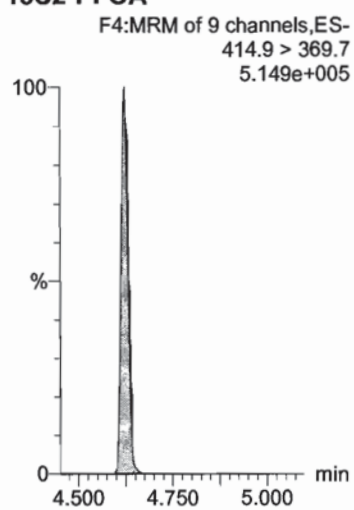

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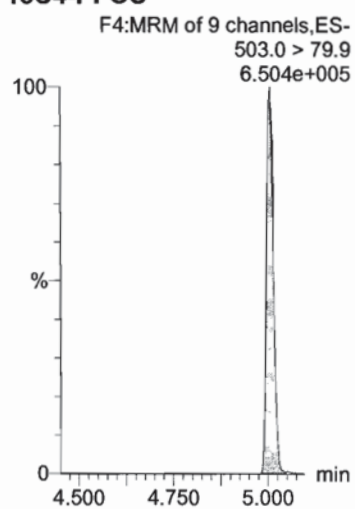

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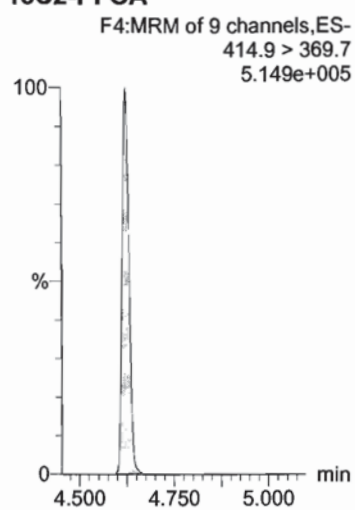

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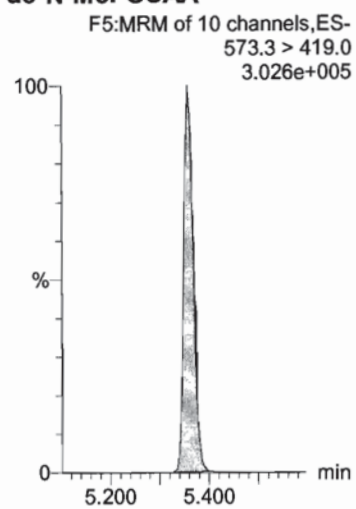

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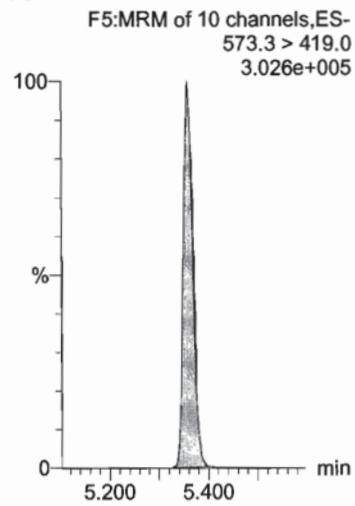

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Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-10, Date: 16-Dec-2017, Time: 16:20:23, ID: ST171216G2-2 PFC CS-2 537 17L1419, Description: PFC CS-2 537 17L1419

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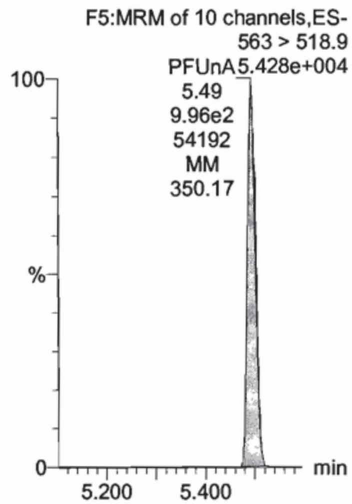

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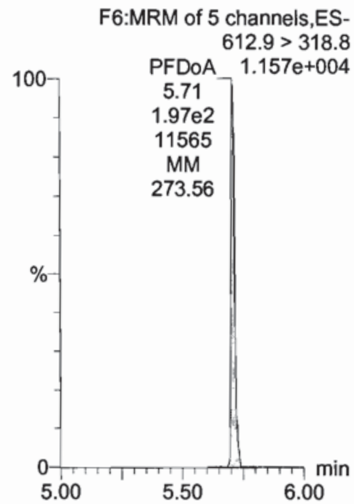

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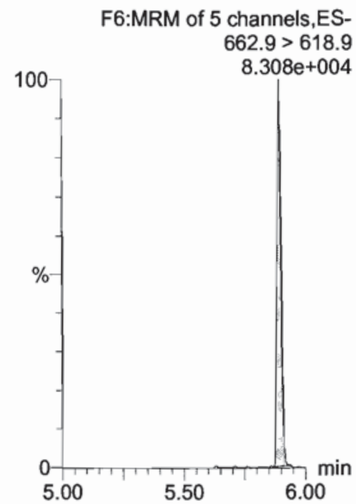

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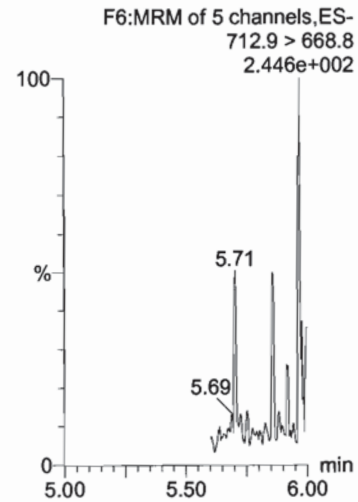

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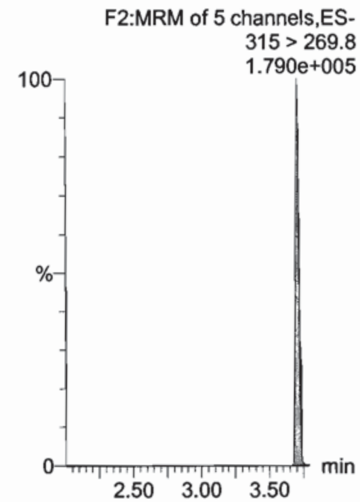

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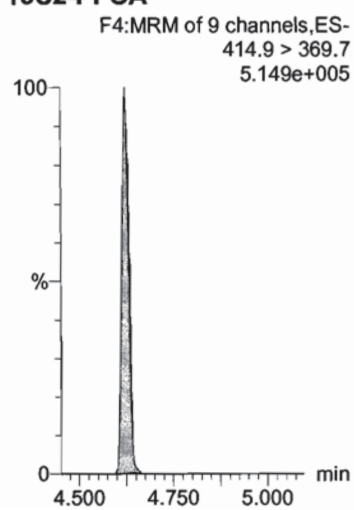

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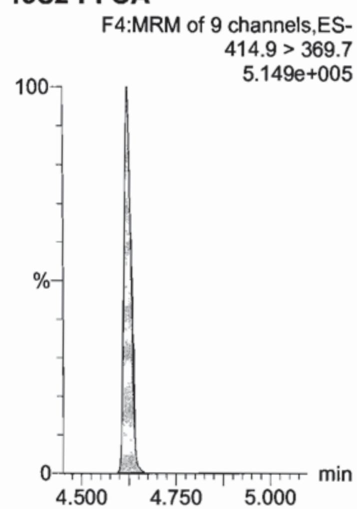

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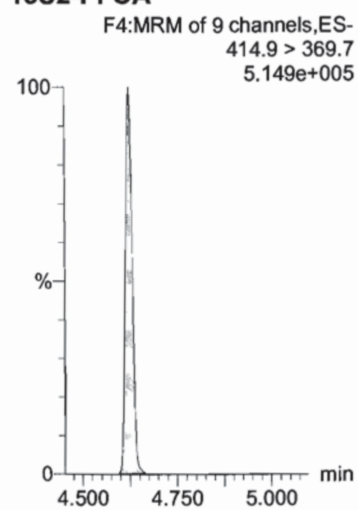

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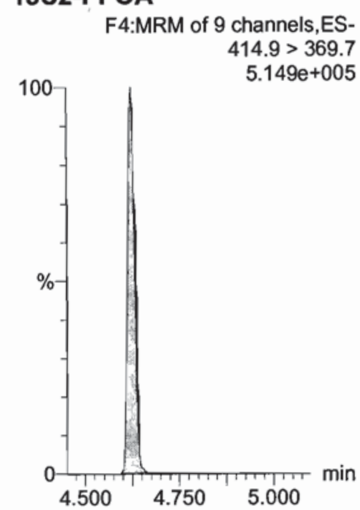

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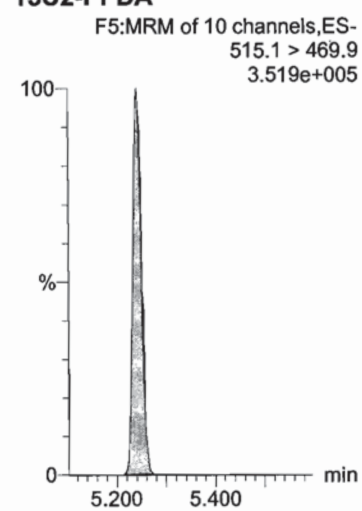

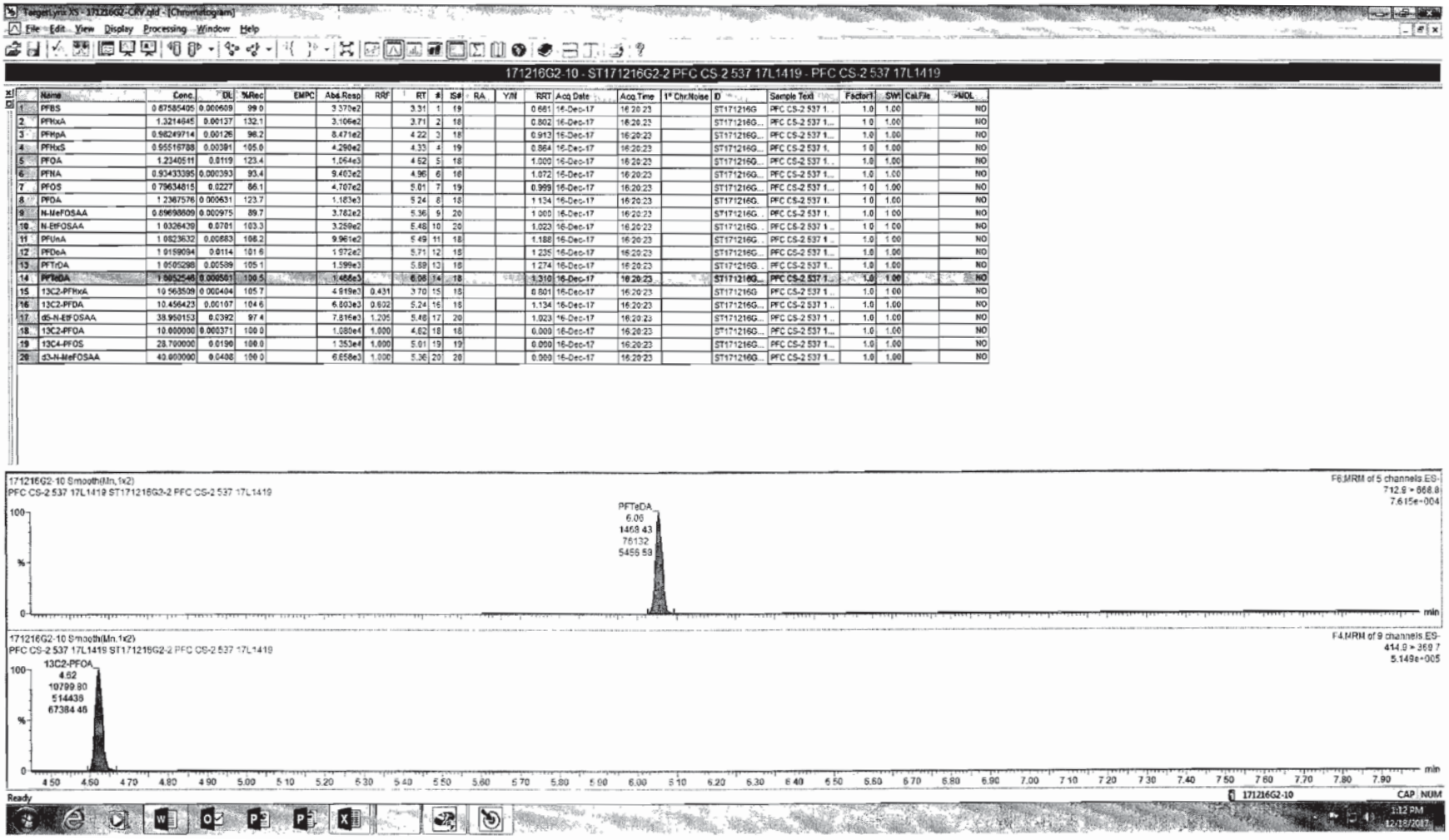

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	SW	Cal.File	PMOL
1	PFBS	0.87585405	0.000609	99.0		3.370e2		3.31	1	19			0.661	16-Dec-17	16:20:23		ST171216G	PFC CS-2 537 1...	1.0	1.00		NO
2	PFHxA	1.3214645	0.00137	132.1		3.106e2		3.71	2	18			0.802	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
3	PFHpA	0.98249714	0.00126	98.2		8.471e2		4.22	3	18			0.913	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
4	PFHxS	0.95516788	0.00391	105.0		4.290e2		4.33	4	19			0.864	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
5	PFOA	1.2340511	0.0119	123.4		1.064e3		4.62	5	18			1.000	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
6	PFNA	0.93433395	0.000393	93.4		9.403e2		4.96	6	18			1.072	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
7	PFOS	0.79634815	0.0227	86.1		4.707e2		5.01	7	19			0.999	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
8	PFDA	1.2367576	0.000631	123.7		1.183e3		5.24	8	18			1.134	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
9	N-MeFOSAA	0.89698809	0.000975	89.7		3.782e2		5.36	9	20			1.000	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
10	N-EtFOSAA	1.0326439	0.0701	103.3		3.259e2		5.48	10	20			1.023	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
11	PFUnA	1.0823632	0.00683	108.2		9.961e2		5.49	11	18			1.188	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
12	PFDoA	1.0159094	0.0114	101.6		1.972e2		5.71	12	18			1.235	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
13	PFTrDA	1.0505298	0.00589	105.1		1.599e3		5.89	13	18			1.274	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
14	PFTeDA	1.0052546	0.000561	100.5		1.468e3		6.00	14	18			1.310	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
15	13C2-PFHxA	10.563509	0.000404	105.7		4.919e3	0.431	3.70	15	18			0.801	16-Dec-17	16:20:23		ST171216G	PFC CS-2 537 1...	1.0	1.00		NO
16	13C2-PFDA	10.456423	0.00107	104.6		6.803e3	0.602	5.24	16	18			1.134	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
17	d5-N-EtFOSAA	38.950153	0.0392	97.4		7.816e3	1.205	5.48	17	20			1.023	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.000371	100.0		1.080e4	1.000	4.62	18	18			0.000	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
19	13C4-PFOS	28.790000	0.0190	100.0		1.353e4	1.000	5.01	19	19			0.000	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0408	100.0		6.658e3	1.000	5.36	20	20			0.000	16-Dec-17	16:20:23		ST171216G...	PFC CS-2 537 1...	1.0	1.00		NO

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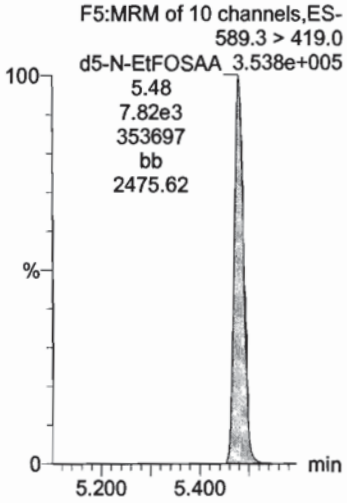
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-10, Date: 16-Dec-2017, Time: 16:20:23, ID: ST171216G2-2 PFC CS-2 537 17L1419, Description: PFC CS-2 537 17L1419

d5-N-EtFOSAA



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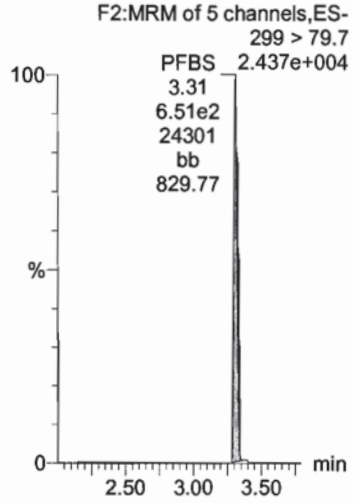
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-11, Date: 16-Dec-2017, Time: 16:32:48, ID: ST171216G2-3 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

PFBS



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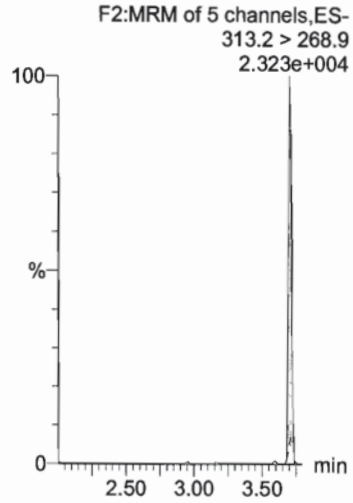

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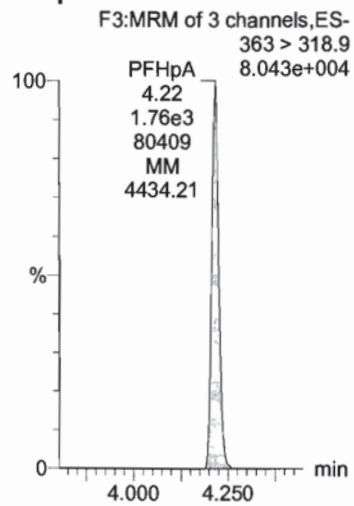

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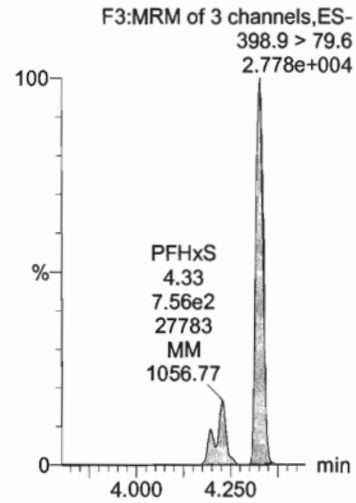

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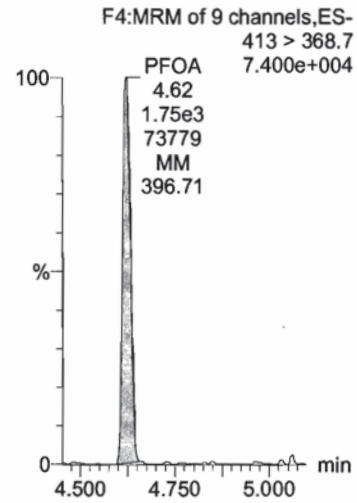

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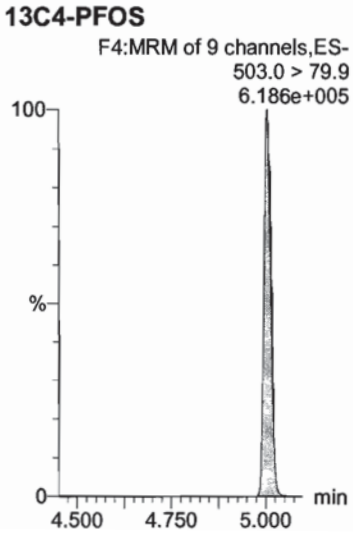

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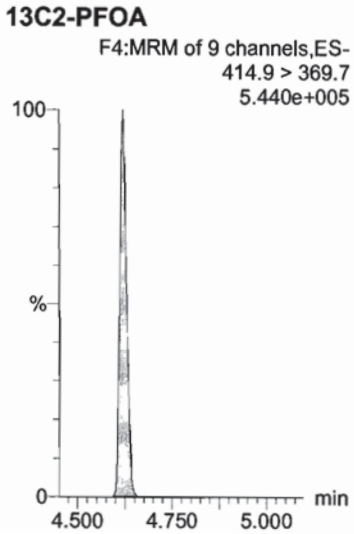

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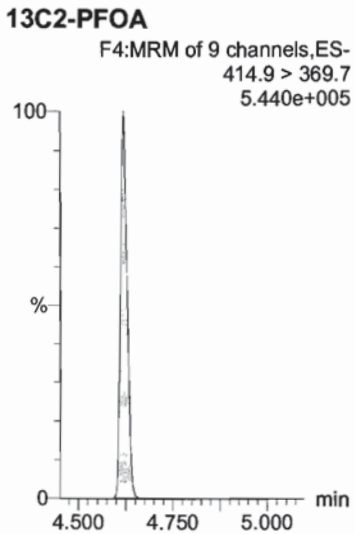

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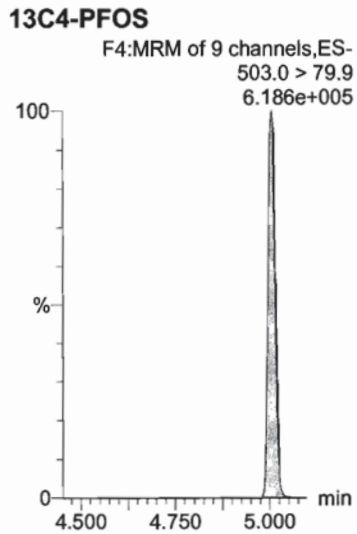

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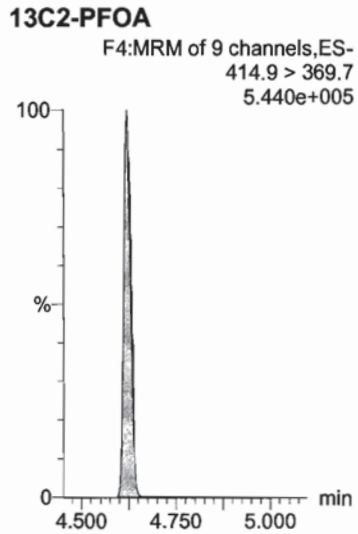

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Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-11, Date: 16-Dec-2017, Time: 16:32:48, ID: ST171216G2-3 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

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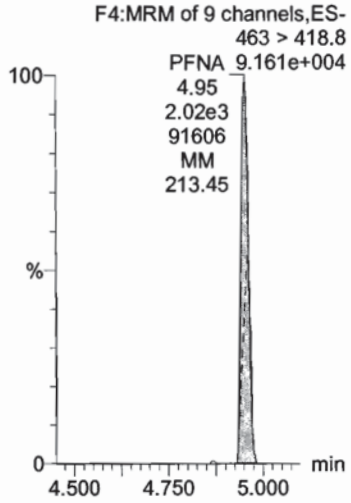

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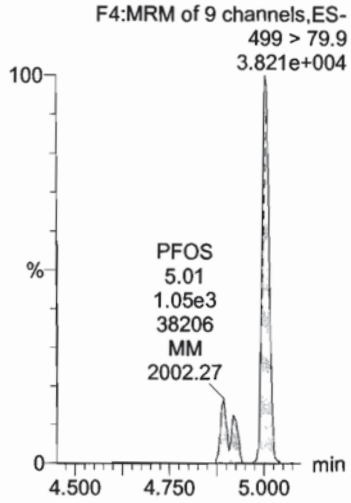

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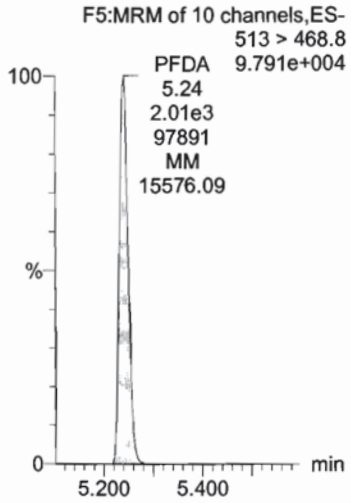

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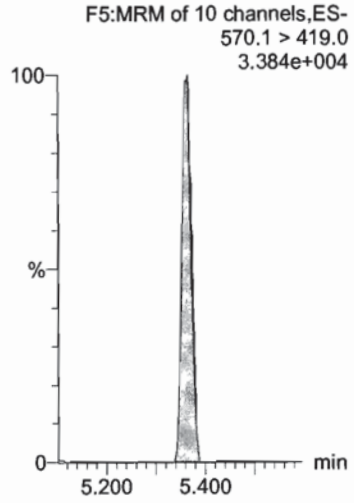
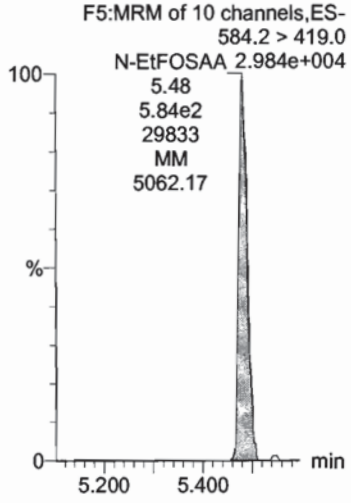
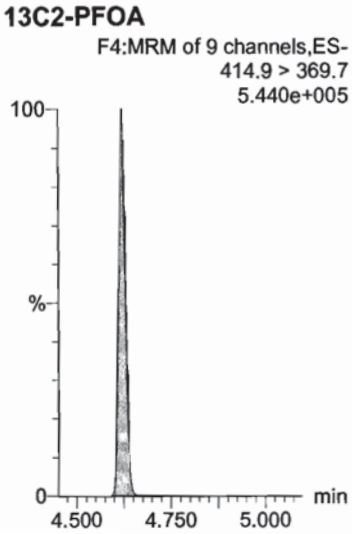


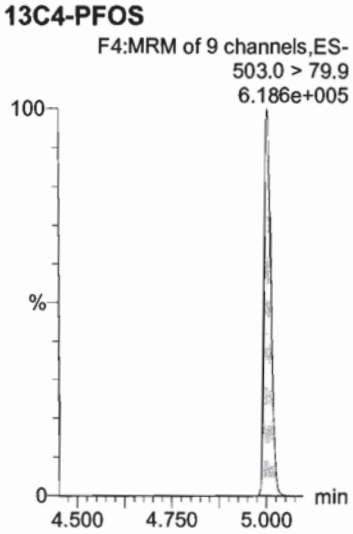
N-EtFOSAA



13C2-PFOA



13C4-PFOS



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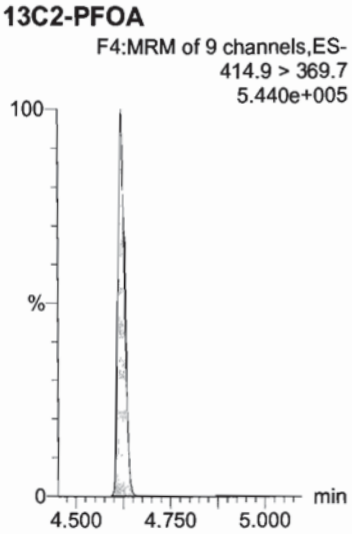

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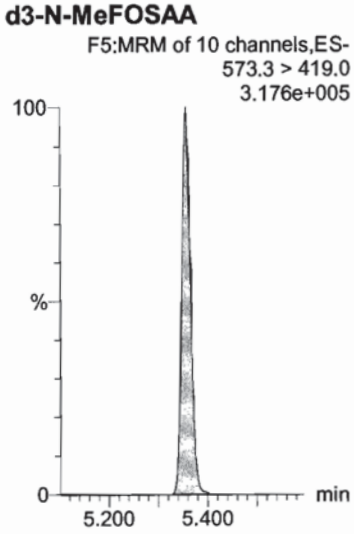

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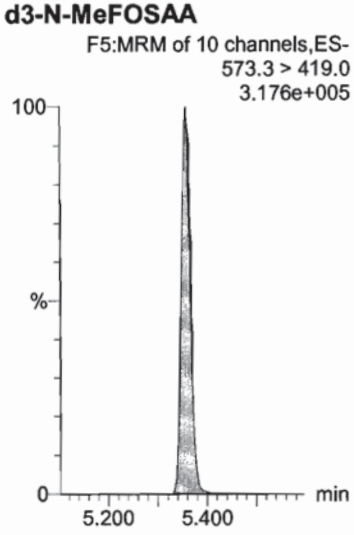

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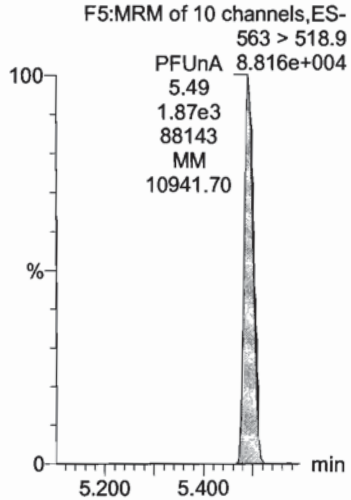
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-11, Date: 16-Dec-2017, Time: 16:32:48, ID: ST171216G2-3 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

PFUnA



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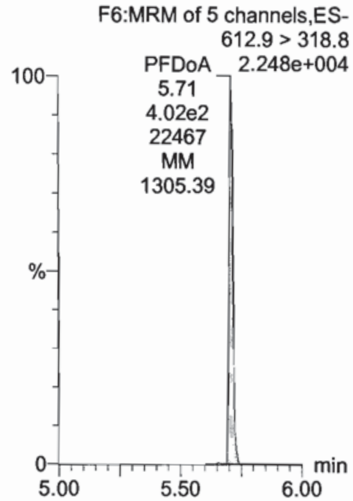
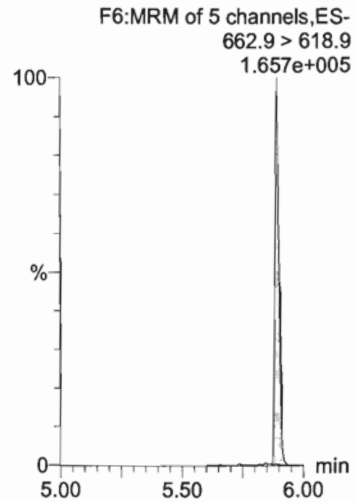
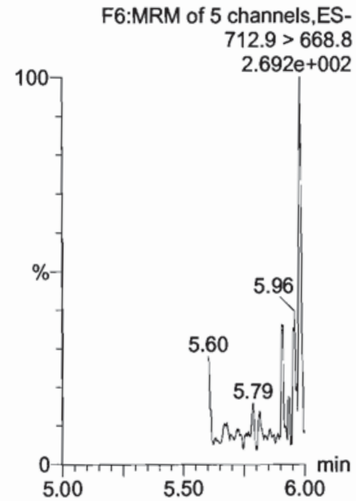


PFTrDA



PFTeDA



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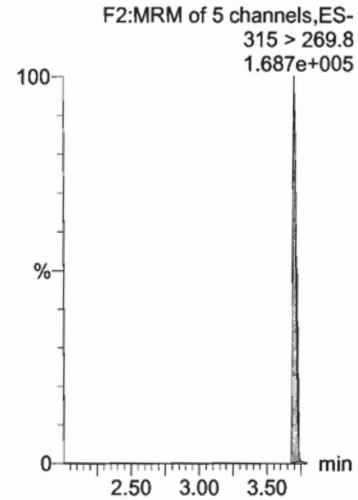

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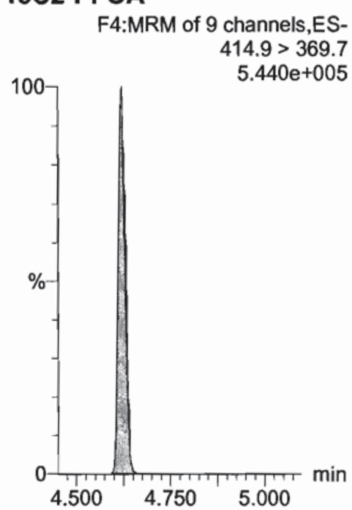

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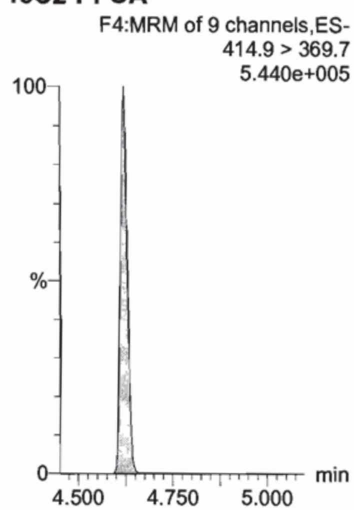
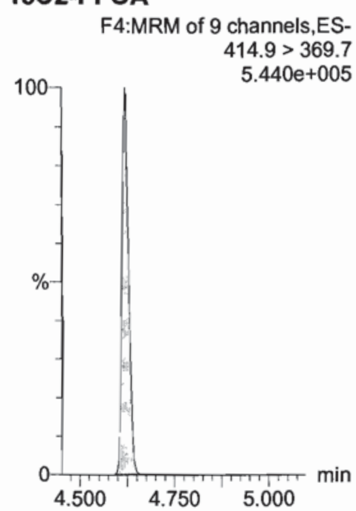


13C2-PFOA



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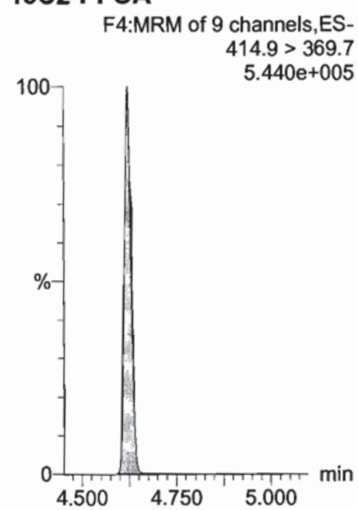

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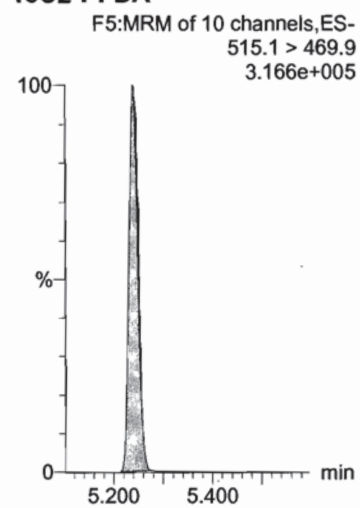
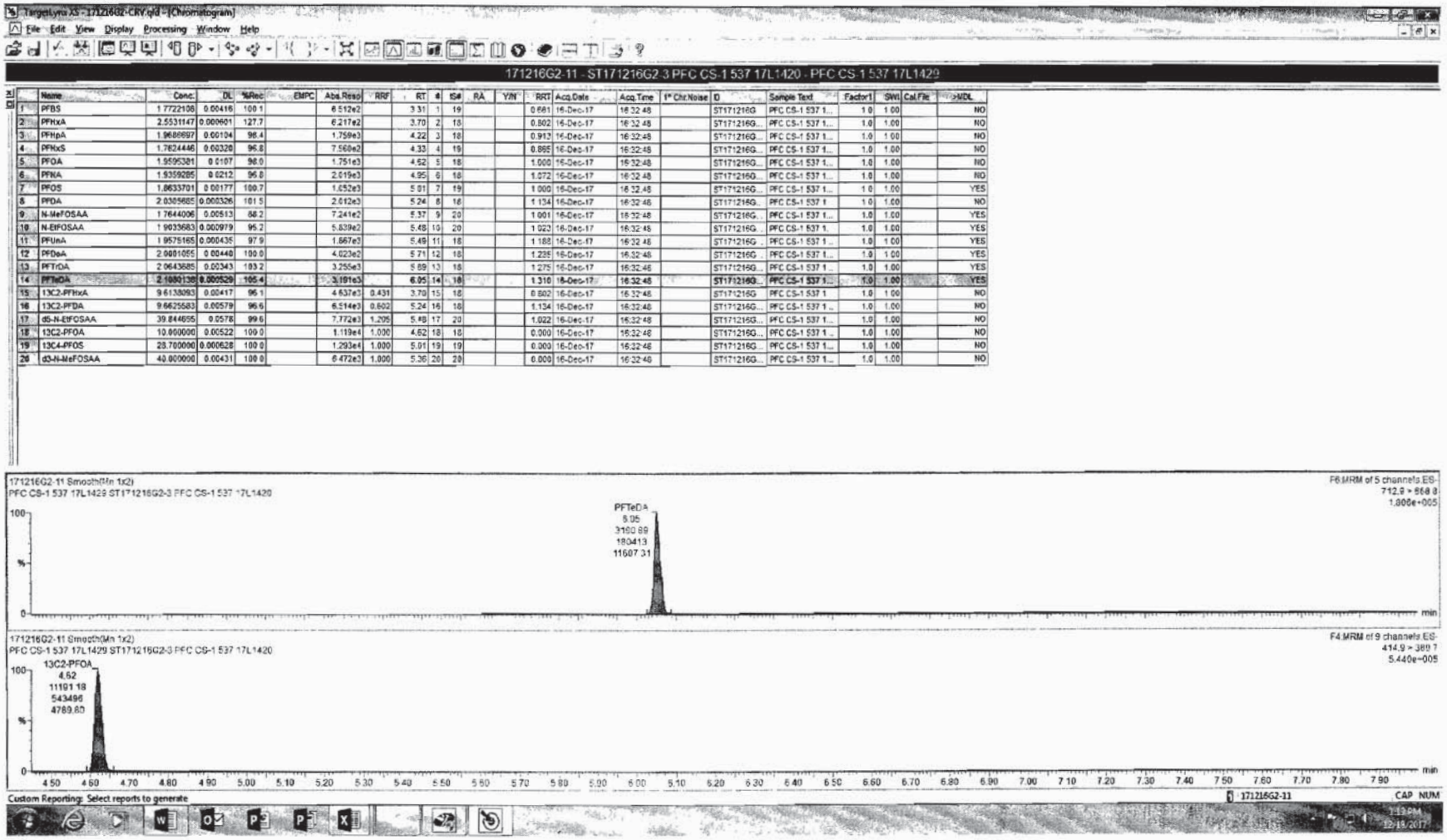




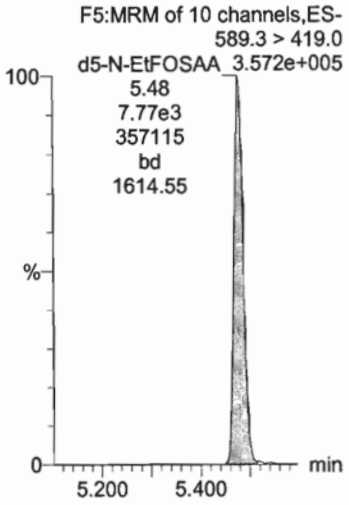
	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1st Chl.Noise	ID	Sample Text	Factor1	Swt	Cal.File	>MDL
1	PFBS	1.7722108	0.00416	100.1		6.512e2		3.31	1	19			0.681	16-Dec-17	16:32:48		ST171216G	PFC CS-1 537 1...	1.0	1.00		NO
2	PFHxA	2.5531147	0.000601	127.7		6.217e2		3.70	2	18			0.802	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
3	PFHpA	1.9686897	0.00104	98.4		1.759e3		4.22	3	18			0.913	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
4	PFHxS	1.7624446	0.00328	96.8		7.568e2		4.33	4	19			0.895	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
5	PFOA	1.9596381	0.0107	98.0		1.751e3		4.62	5	18			1.000	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
6	PFNA	1.9359285	0.0212	96.8		2.019e3		4.95	6	18			1.072	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
7	PFOS	1.8633701	0.00177	109.7		1.652e3		5.01	7	19			1.000	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
8	PFDA	2.0305685	0.003326	101.5		2.012e3		5.24	8	18			1.134	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1	1.0	1.00		NO
9	N-MeFOSAA	1.7644006	0.00513	88.2		7.241e2		5.37	9	20			1.001	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
10	N-EtFOSAA	1.9033583	0.000979	95.2		5.839e2		5.48	10	20			1.023	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
11	PFUnA	1.9575165	0.000435	97.9		1.867e3		5.49	11	18			1.168	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
12	PFDoA	2.0001055	0.00440	100.0		4.023e2		5.71	12	18			1.235	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
13	PFTrDA	2.0643685	0.00343	103.2		3.255e3		5.89	13	18			1.275	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
14	PFTeDA	2.1060138	0.000529	105.4		3.191e3		6.05	14	18			1.310	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		YES
15	13C2-PFHxA	9.6138093	0.00417	96.1		4.637e3	0.431	3.70	15	18			0.802	16-Dec-17	16:32:48		ST171216G	PFC CS-1 537 1	1.0	1.00		NO
16	13C2-PFDA	9.6625583	0.00579	96.6		6.514e3	0.602	5.24	16	18			1.134	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
17	d5-N-EtFOSAA	39.844695	0.0578	99.6		7.772e3	1.205	5.48	17	20			1.022	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.00522	100.0		1.119e4	1.000	4.62	18	18			0.000	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.000628	100.0		1.293e4	1.000	5.01	19	19			0.000	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.00431	100.0		6.472e3	1.000	5.36	20	20			0.000	16-Dec-17	16:32:48		ST171216G...	PFC CS-1 537 1...	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-11, Date: 16-Dec-2017, Time: 16:32:48, ID: ST171216G2-3 PFC CS-1 537 17L1420, Description: PFC CS-1 537 17L1429

d5-N-EtFOSAA



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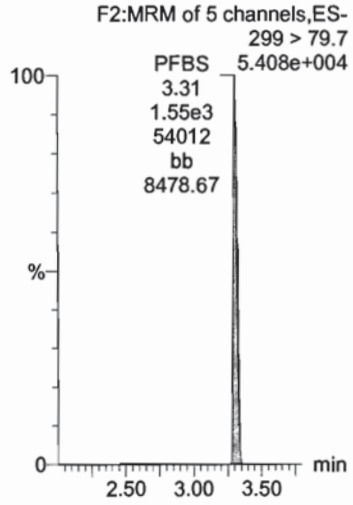
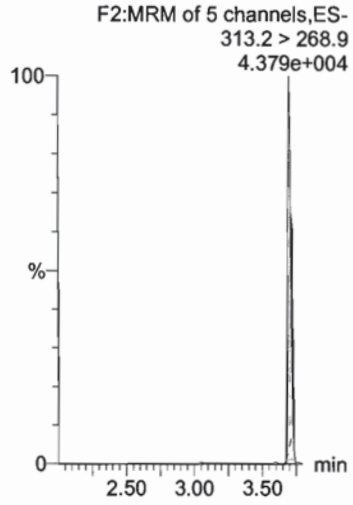
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-12, Date: 16-Dec-2017, Time: 16:45:13, ID: ST171216G2-4 PFC CS0 537 17L1421, Description: PFC CS0 537 17L1421

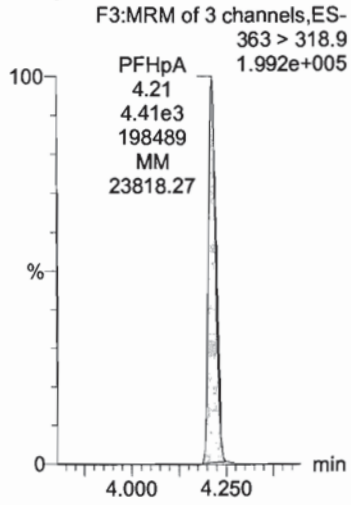
PFBS



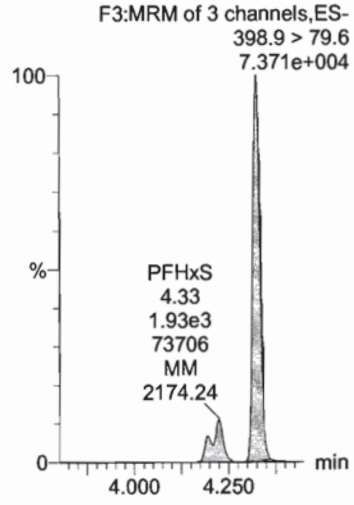
PFHxA



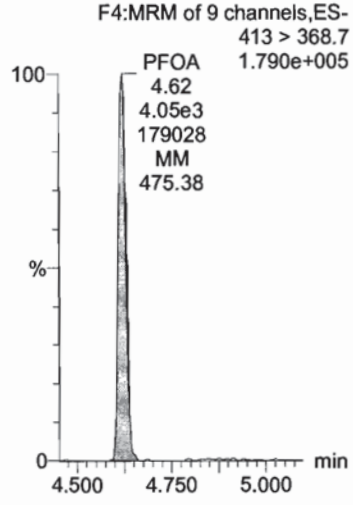
PFHpA



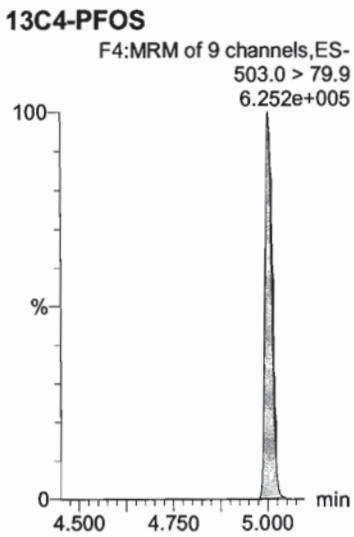
PFHxS



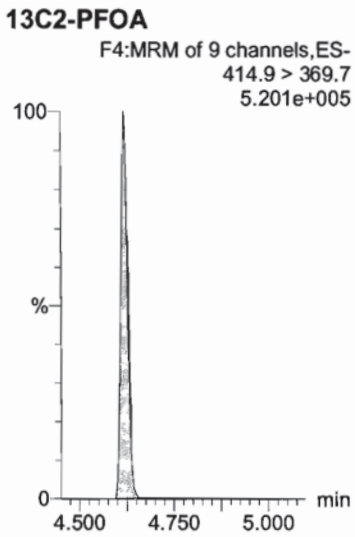
PFOA



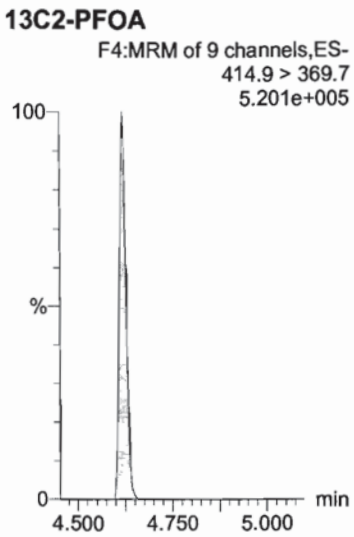
13C4-PFOS



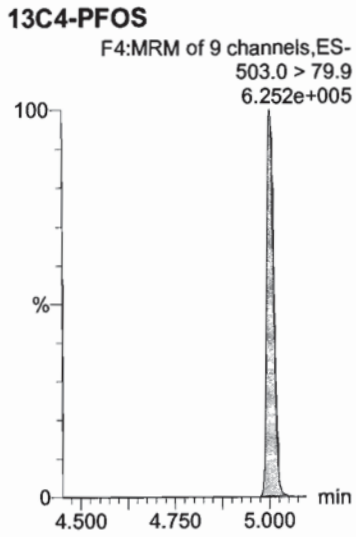
13C2-PFOA



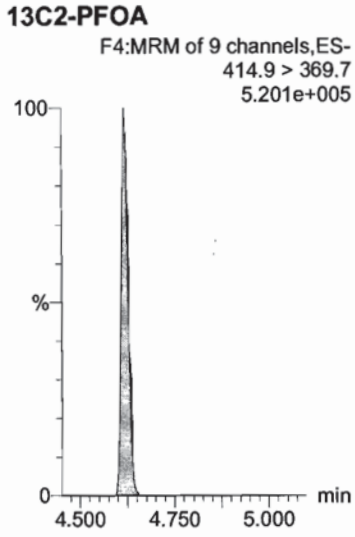
13C2-PFOA



13C4-PFOS



13C2-PFOA



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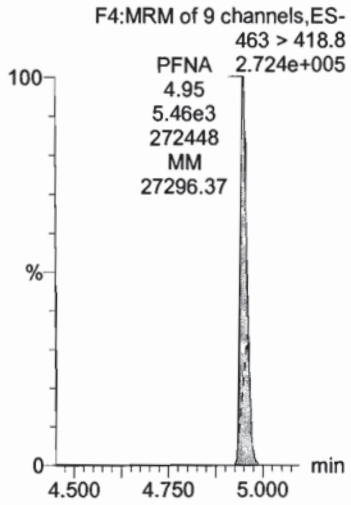
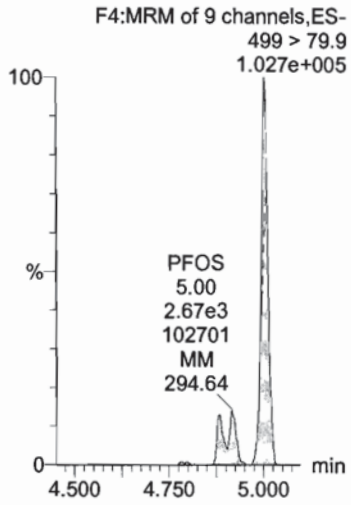
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-12, Date: 16-Dec-2017, Time: 16:45:13, ID: ST171216G2-4 PFC CS0 537 17L1421, Description: PFC CS0 537 17L1421

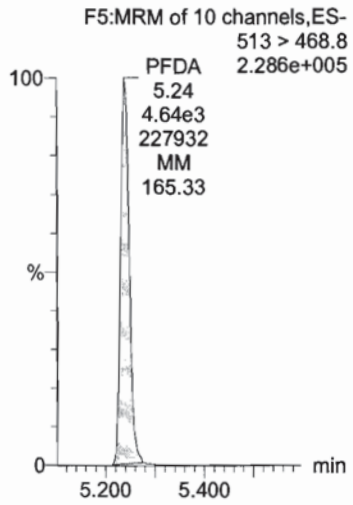
PFNA



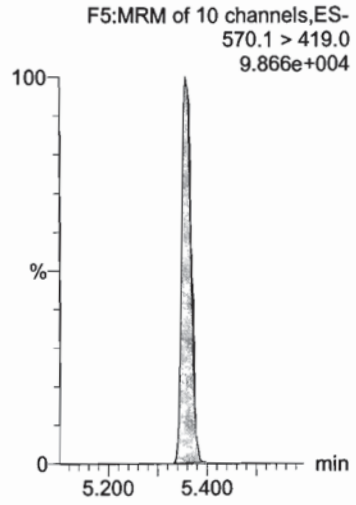
PFOS



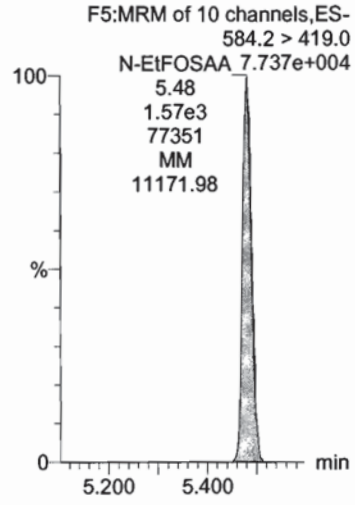
PFDA



N-MeFOSAA



N-EtFOSAA



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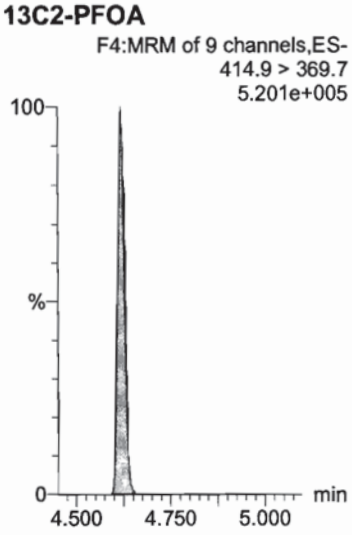
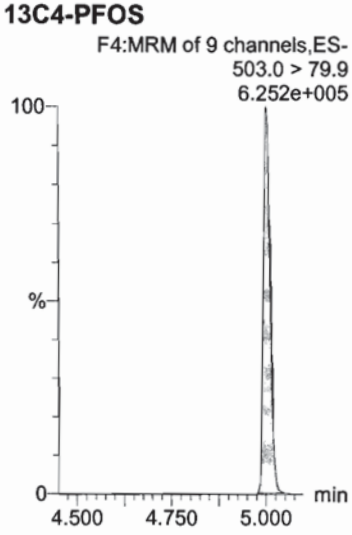


13C4-PFOS



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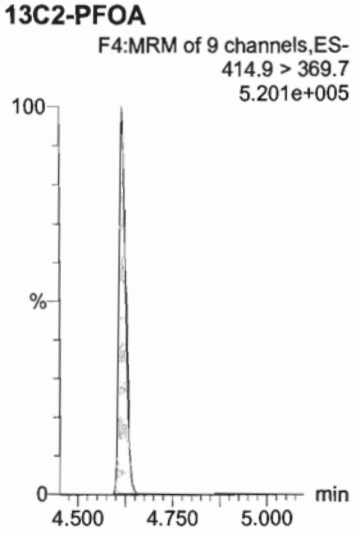

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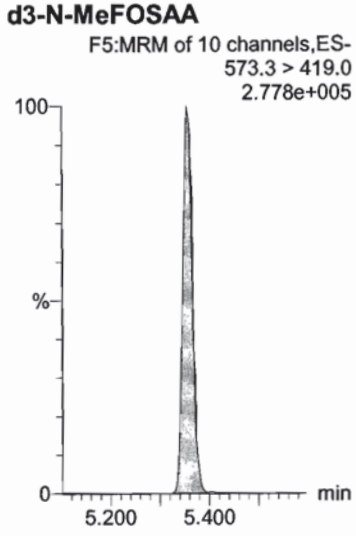

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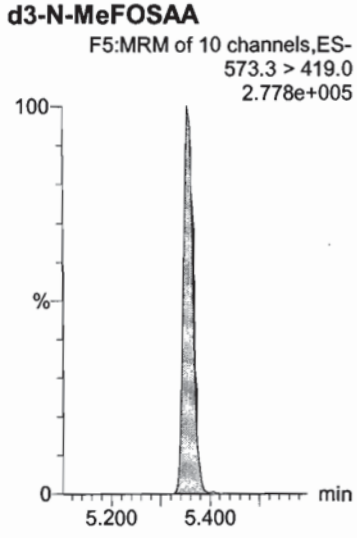

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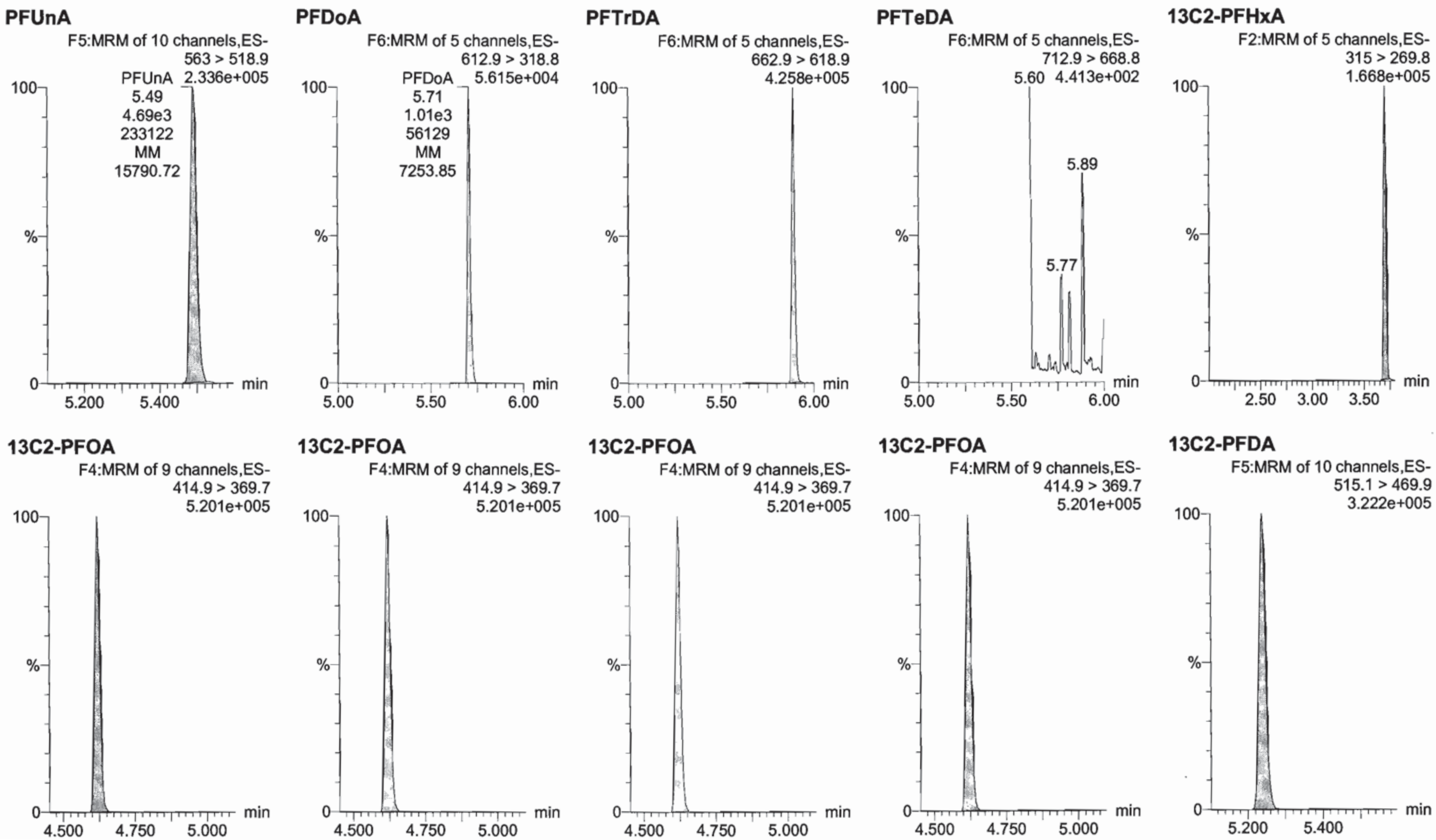
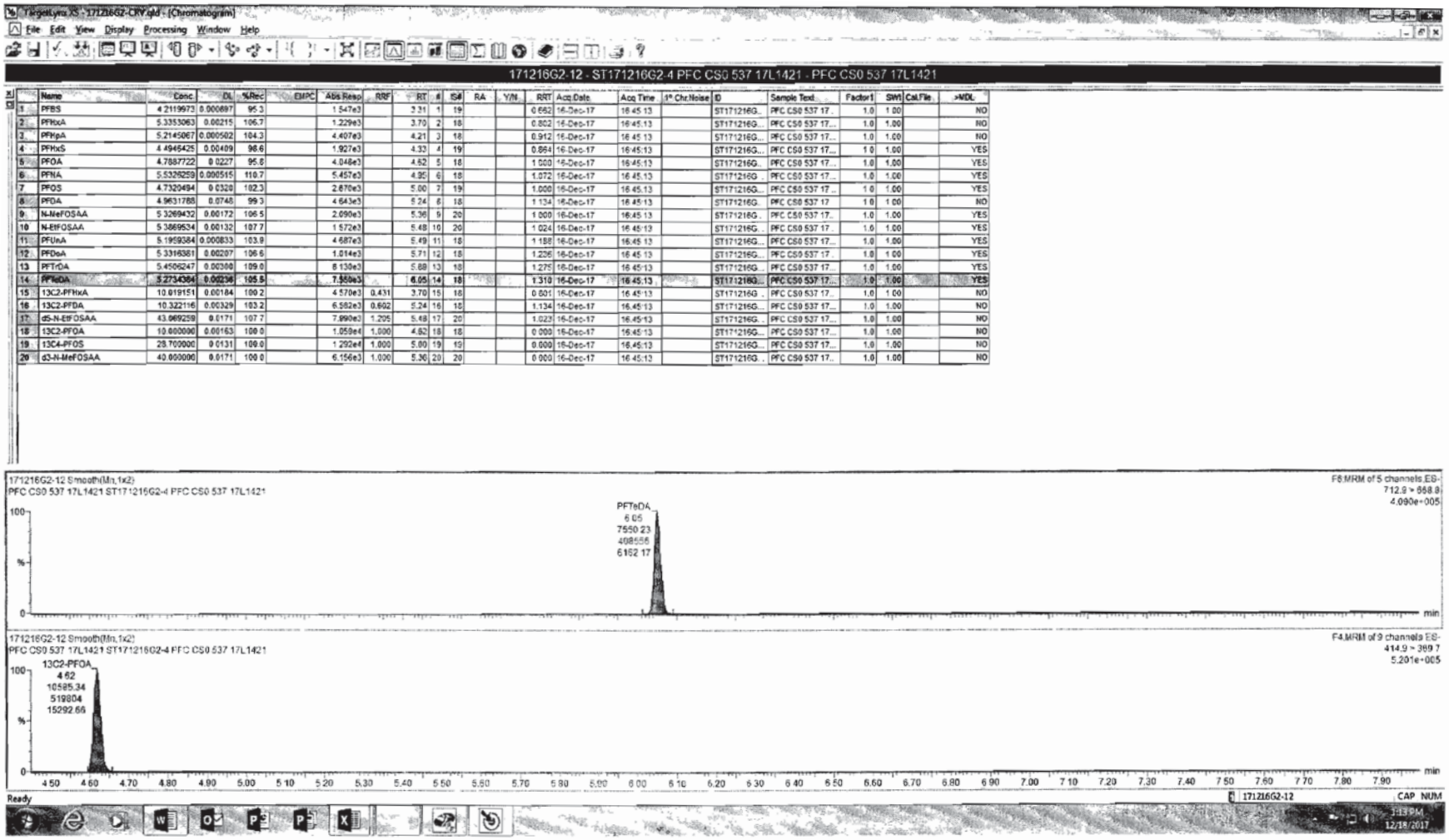
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-12, Date: 16-Dec-2017, Time: 16:45:13, ID: ST171216G2-4 PFC CS0 537 17L1421, Description: PFC CS0 537 17L1421





	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	SW1	Cal.File	>MDL
1	PFBS	4.2119973	0.000697	95.3		1.547e3		3.31	1	19			0.662	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
2	PFHxA	5.3353063	0.00215	106.7		1.229e3		3.70	2	18			0.802	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
3	PFHpA	5.2145067	0.000502	104.3		4.407e3		4.21	3	18			0.912	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
4	PFHxS	4.4946425	0.00409	98.6		1.927e3		4.33	4	19			0.864	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
5	PFOA	4.7887722	0.0227	95.8		4.048e3		4.62	5	18			1.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
6	PFNA	5.5326259	0.000515	110.7		5.457e3		4.95	6	18			1.072	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
7	PFOS	4.7320494	0.0320	102.3		2.670e3		5.00	7	19			1.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
8	PFDA	4.9631788	0.0748	99.3		4.643e3		5.24	8	18			1.134	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
9	N-MeFOSAA	5.3269432	0.00172	106.5		2.090e3		5.36	9	20			1.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
10	N-EtFOSAA	5.3869534	0.00132	107.7		1.572e3		5.48	10	20			1.024	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
11	PFUnA	5.1959384	0.000833	103.9		4.687e3		5.49	11	18			1.188	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
12	PFDoA	5.3316361	0.00207	106.6		1.014e3		5.71	12	18			1.226	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
13	PFTrDA	5.4506247	0.00360	109.0		8.139e3		5.88	13	18			1.275	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
14	PFTeDA	5.2734084	0.00236	105.5		7.550e3		6.05	14	18			1.310	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		YES
15	13C2-PFHxA	10.019151	0.00184	100.2		4.570e3	0.431	3.70	15	18			0.801	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
16	13C2-PFDA	10.322116	0.00329	103.2		6.582e3	0.602	5.24	16	18			1.134	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
17	d5-N-EtFOSAA	43.969259	0.0171	107.7		7.990e3	1.205	5.48	17	20			1.023	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.00163	100.0		1.059e4	1.000	4.62	18	18			0.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.0131	109.0		1.292e4	1.000	5.00	19	19			0.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0171	100.0		6.156e3	1.000	5.36	20	20			0.000	16-Dec-17	16:45:13		ST171216G...	PFC CS0 537 17...	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-12, Date: 16-Dec-2017, Time: 16:45:13, ID: ST171216G2-4 PFC CS0 537 17L1421, Description: PFC CS0 537 17L1421

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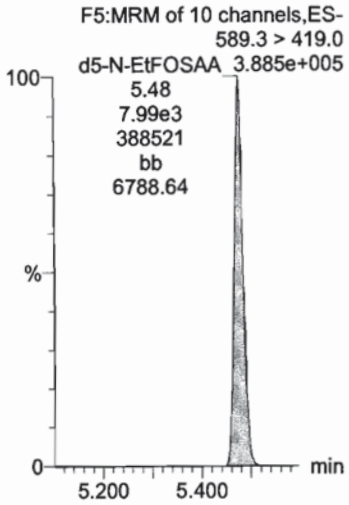
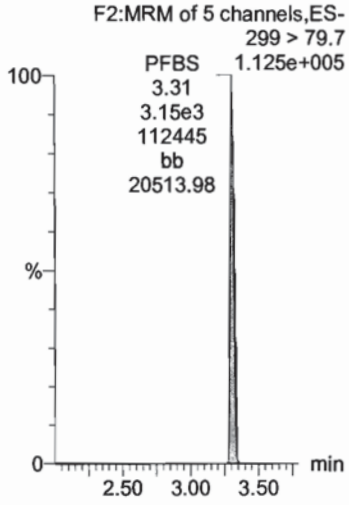


Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

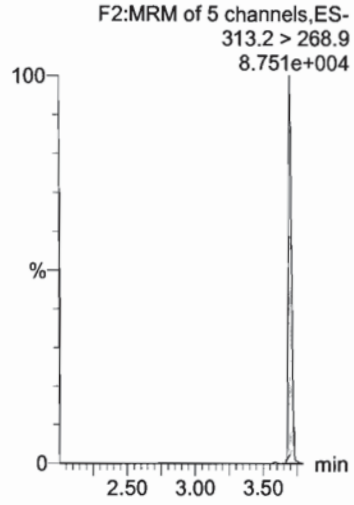
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-13, Date: 16-Dec-2017, Time: 16:57:39, ID: ST171216G2-5 PFC CS1 537 17L1422, Description: PFC CS1 537 17L1422

PFBS



PFHxA



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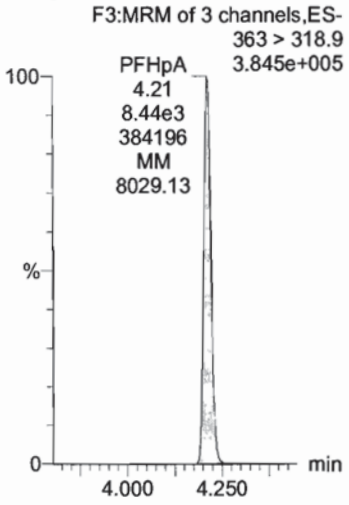
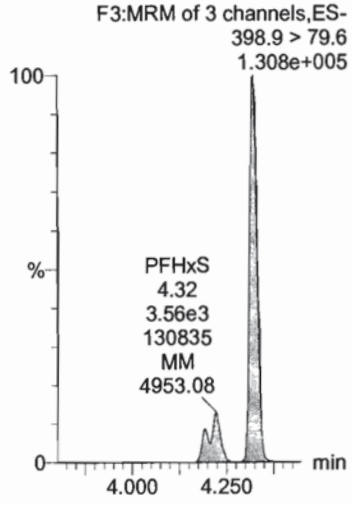


PFHxS



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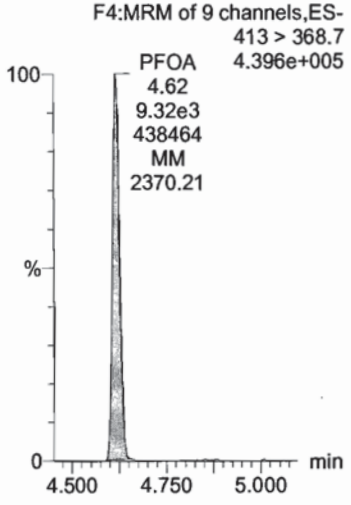

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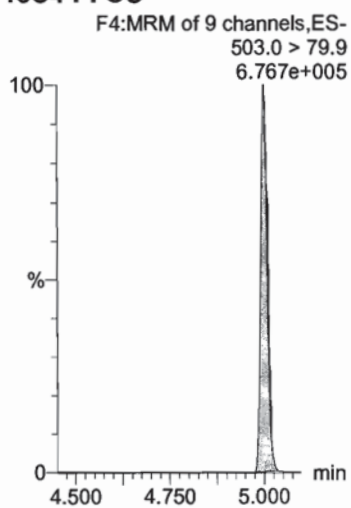

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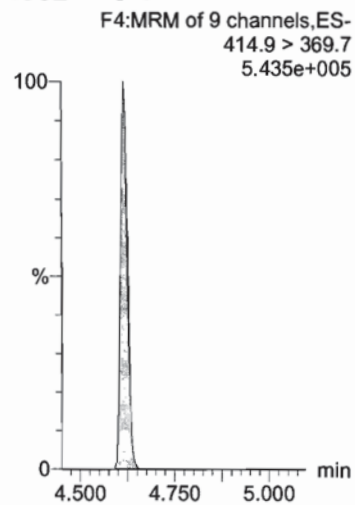

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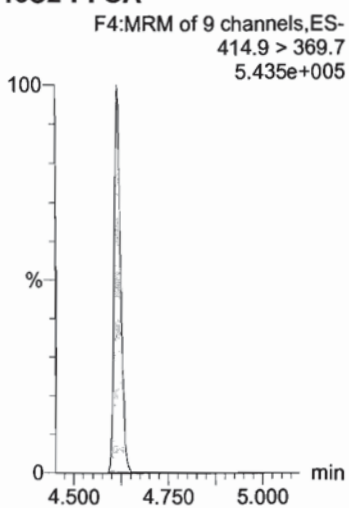

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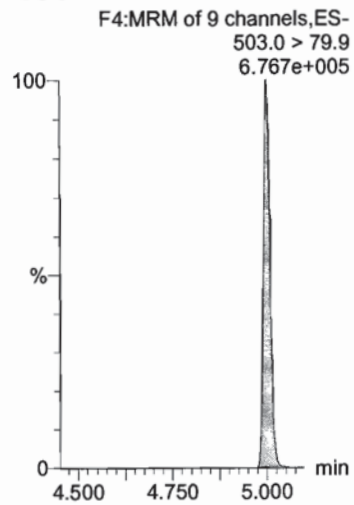

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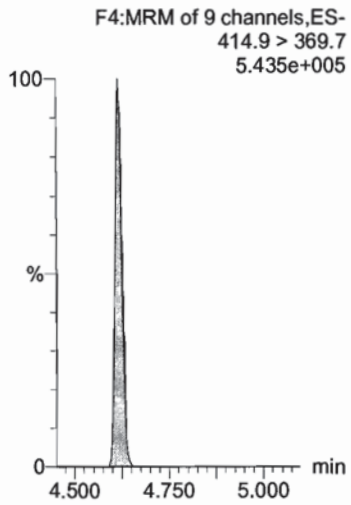

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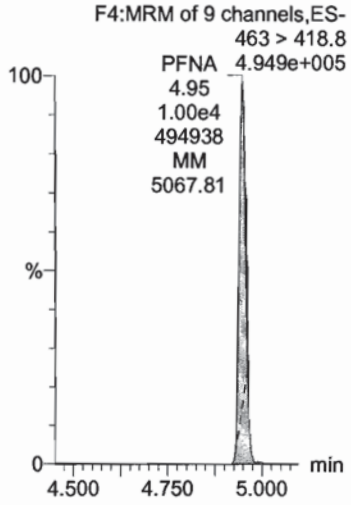
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-13, Date: 16-Dec-2017, Time: 16:57:39, ID: ST171216G2-5 PFC CS1 537 17L1422, Description: PFC CS1 537 17L1422

PFNA



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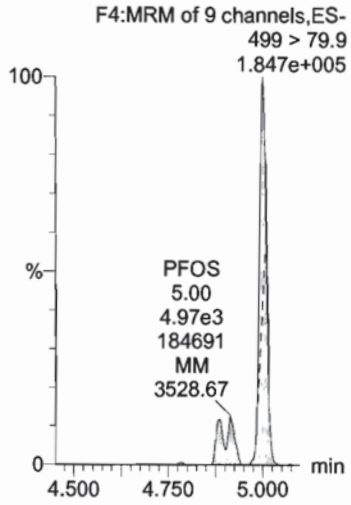

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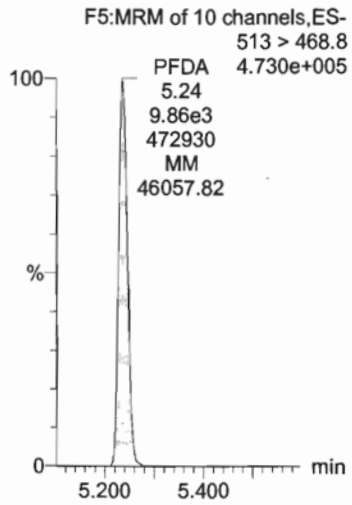

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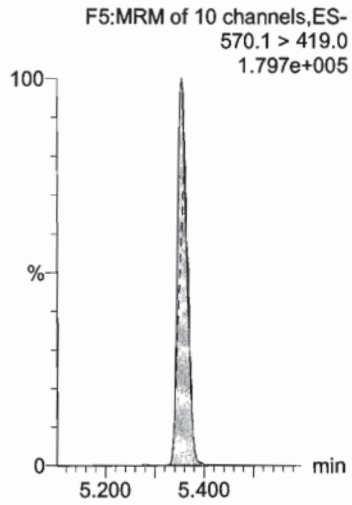

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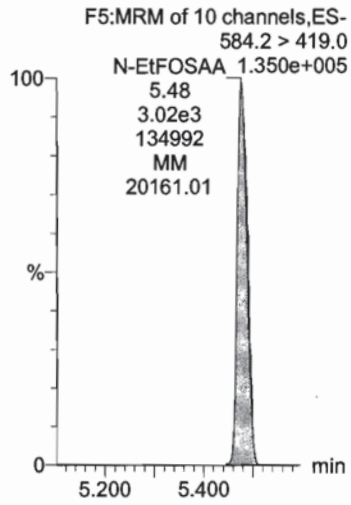

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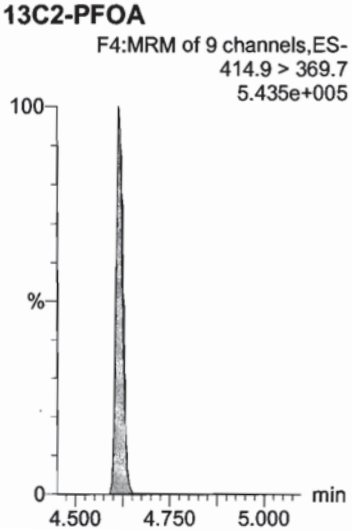

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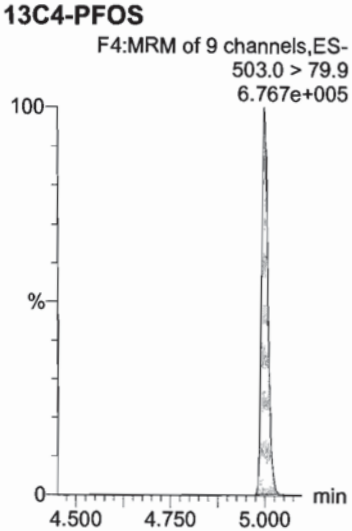

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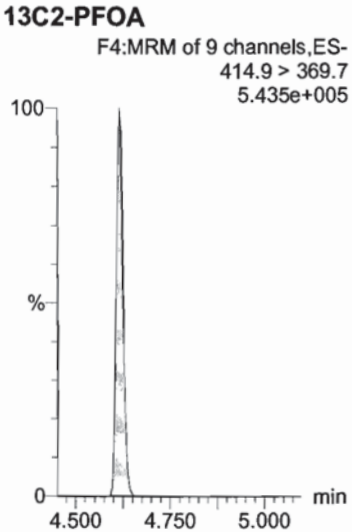

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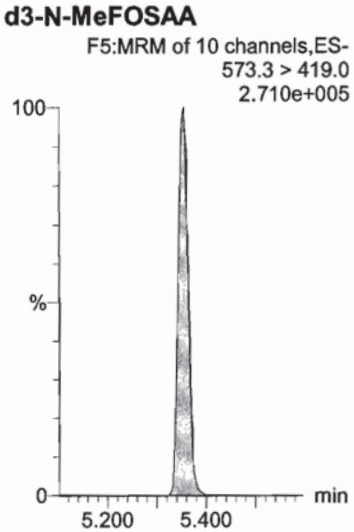

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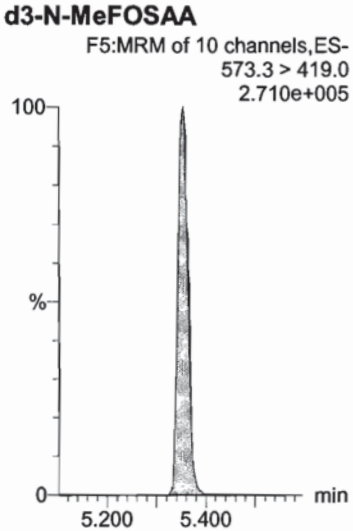

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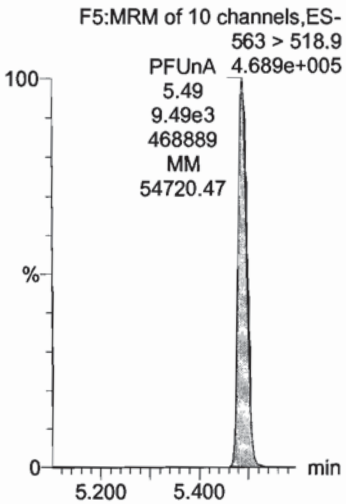
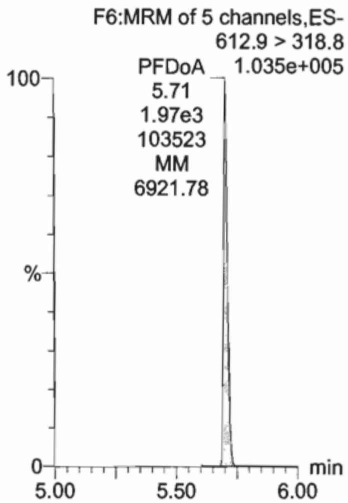
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-13, Date: 16-Dec-2017, Time: 16:57:39, ID: ST171216G2-5 PFC CS1 537 17L1422, Description: PFC CS1 537 17L1422

PFUnA



PFDoA



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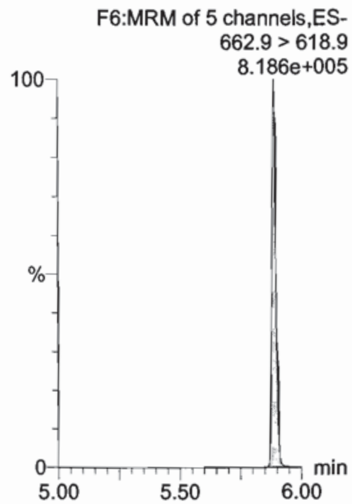
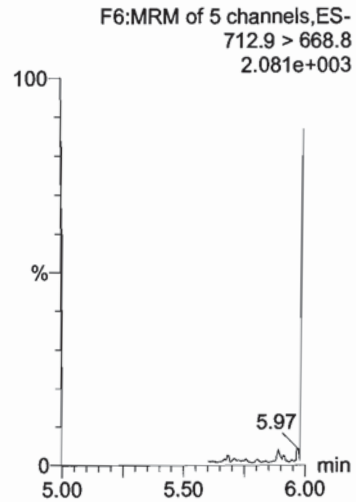
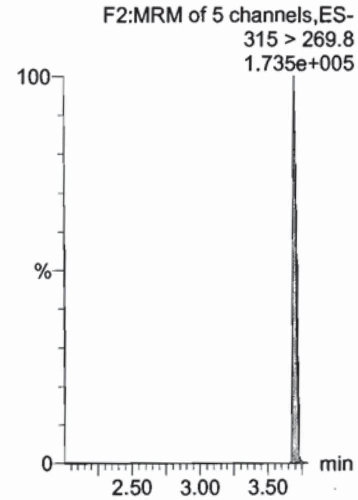


PFTeDA



13C2-PFHxA



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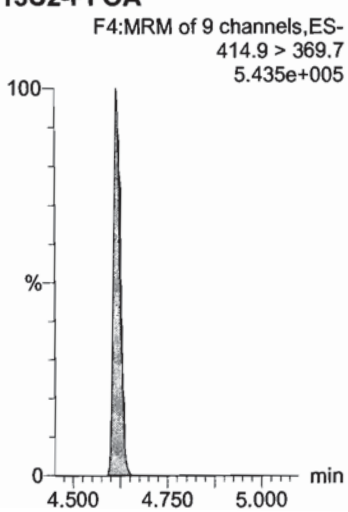

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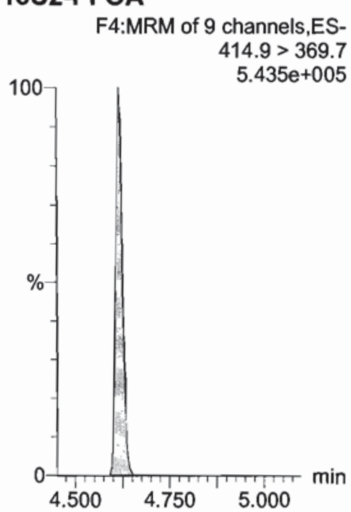

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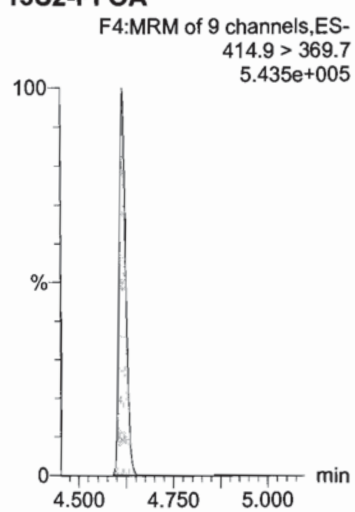

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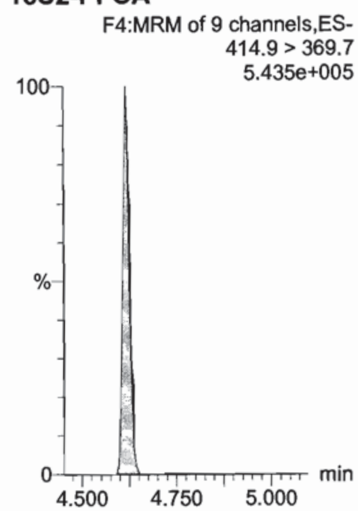

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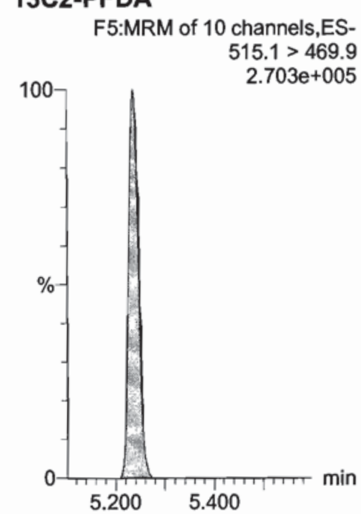

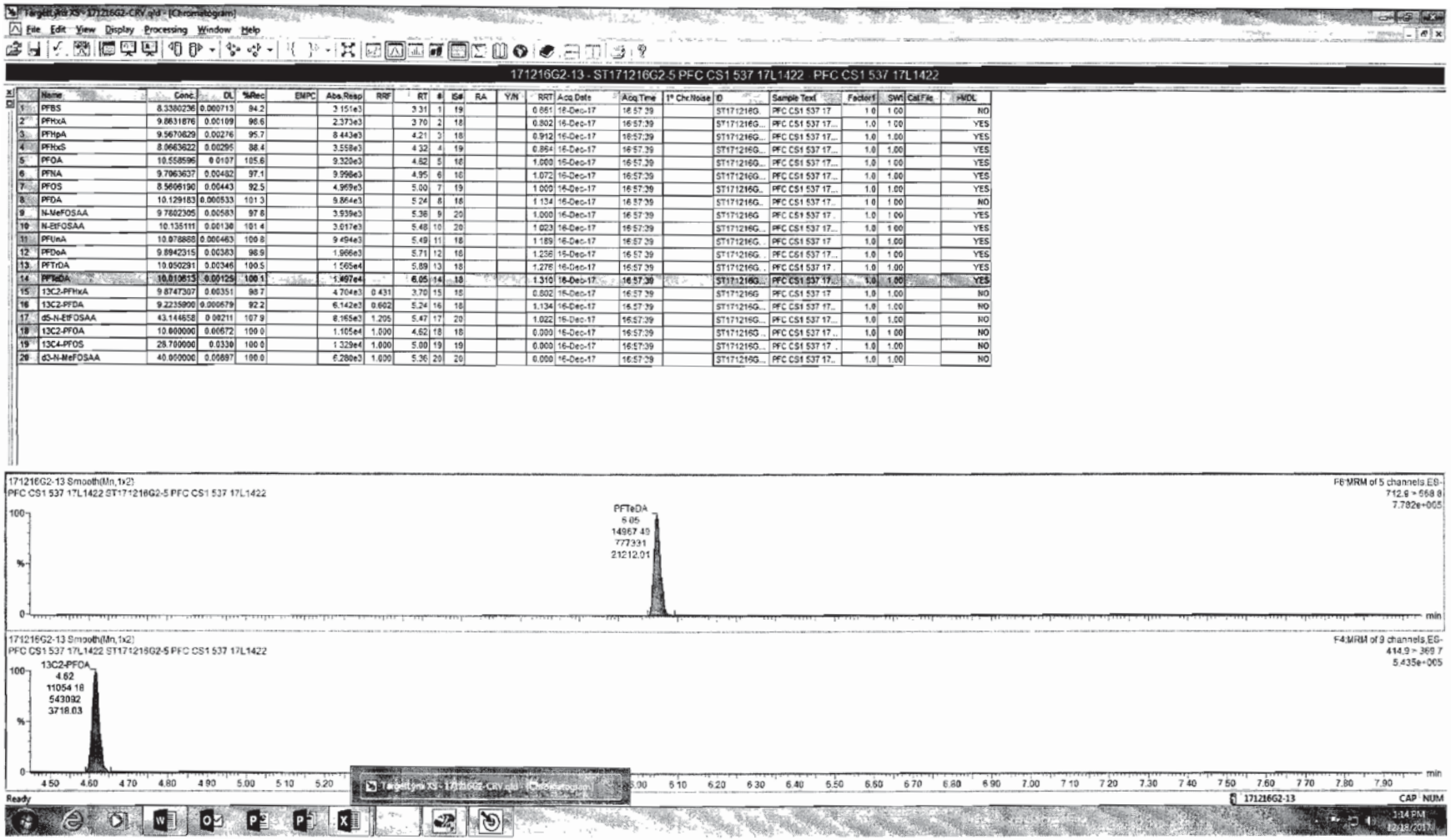

	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	ISd	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	SWt	Cal File	HMDL
1	PFBS	8.3380236	0.000713	84.2		3.151e3		3.31	1	19			0.661	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17	1.0	1.00		NO
2	PFHxA	9.8631876	0.00109	98.6		2.373e3		3.70	2	18			0.802	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
3	PFHpA	9.5670829	0.00276	95.7		8.443e3		4.21	3	18			0.912	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
4	PFHxS	8.8663622	0.00295	88.4		3.558e3		4.32	4	19			0.864	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
5	PFOA	10.558596	0.0107	105.6		9.328e3		4.62	5	18			1.000	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
6	PFNA	9.7063637	0.00482	97.1		9.998e3		4.95	6	18			1.072	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
7	PFOS	8.5696190	0.00443	92.5		4.969e3		5.00	7	19			1.000	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
8	PFDA	10.129183	0.000533	101.3		9.864e3		5.24	8	18			1.134	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17..	1.0	1.00		NO
9	N-MeFOSAA	9.7802305	0.00583	97.8		3.939e3		5.36	9	20			1.000	16-Dec-17	16:57:39		ST171216G	PFC CS1 537 17..	1.0	1.00		YES
10	N-EtFOSAA	10.135111	0.00138	101.4		3.017e3		5.48	10	20			1.023	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
11	PFUnA	10.078868	0.000463	100.8		9.494e3		5.49	11	18			1.189	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17	1.0	1.00		YES
12	PFDoA	9.8942315	0.00383	98.9		1.966e3		5.71	12	18			1.236	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
13	PFTrDA	10.050291	0.00346	100.5		1.565e4		5.89	13	18			1.276	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17..	1.0	1.00		YES
14	PFTeDA	10.010813	0.00125	100.1		1.497e4		6.05	14	18			1.310	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		YES
15	13C2-PFHxA	9.8747307	0.00351	98.7		4.704e3	0.431	3.70	15	18			0.802	16-Dec-17	16:57:39		ST171216G	PFC CS1 537 17	1.0	1.00		NO
16	13C2-PFDA	9.2235906	0.000679	92.2		6.142e3	0.602	5.24	16	18			1.134	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17..	1.0	1.00		NO
17	d5-N-EtFOSAA	43.144658	0.00211	107.9		8.165e3	1.205	5.47	17	20			1.022	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.600000	0.00672	106.0		1.105e4	1.000	4.62	18	18			0.000	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17..	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.0339	100.0		1.329e4	1.000	5.00	19	19			0.000	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17 ..	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.00697	100.0		6.288e3	1.000	5.36	20	20			0.000	16-Dec-17	16:57:39		ST171216G..	PFC CS1 537 17..	1.0	1.00		NO

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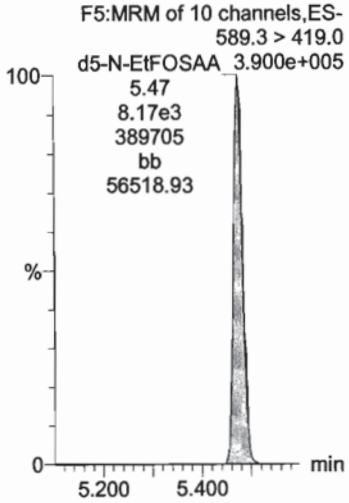
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-13, Date: 16-Dec-2017, Time: 16:57:39, ID: ST171216G2-5 PFC CS1 537 17L1422, Description: PFC CS1 537 17L1422

d5-N-EtFOSAA



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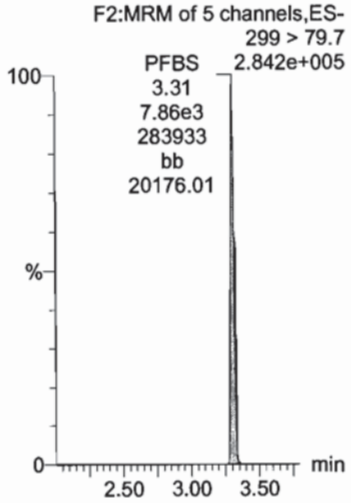
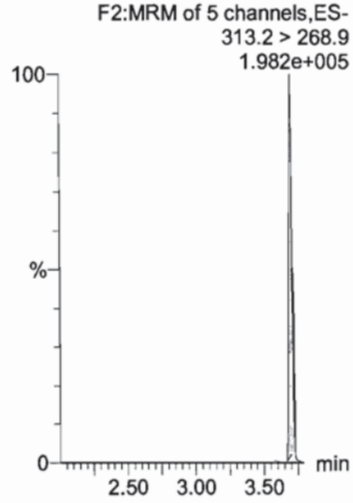
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-14, Date: 16-Dec-2017, Time: 17:10:07, ID: ST171216G2-6 PFC CS2 537 17L1423, Description: PFC CS2 537 17L1423

PFBS



PFHxA



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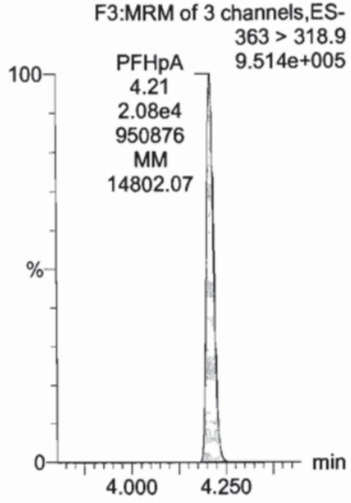

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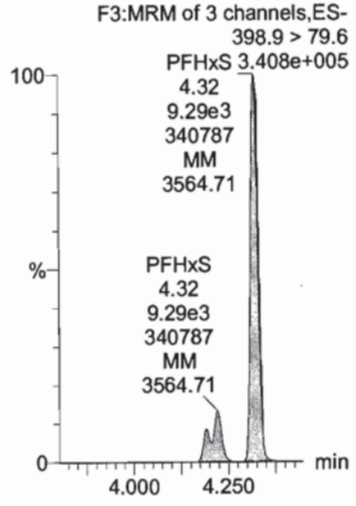

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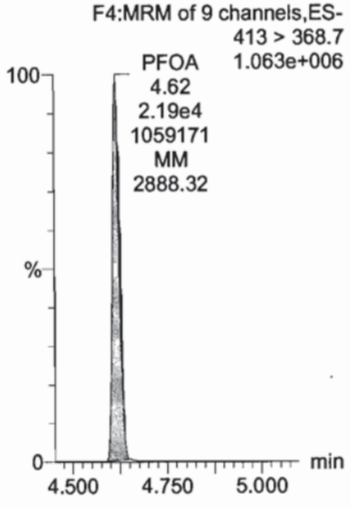

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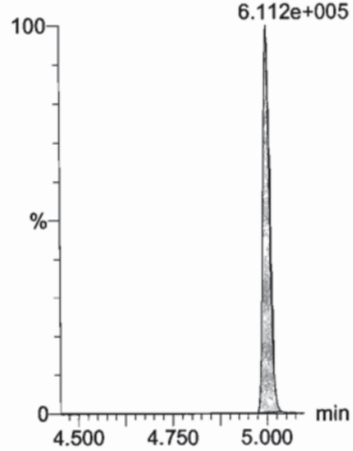

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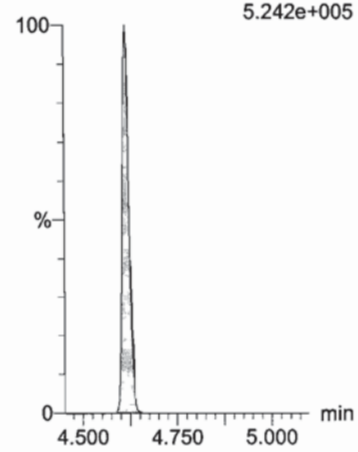

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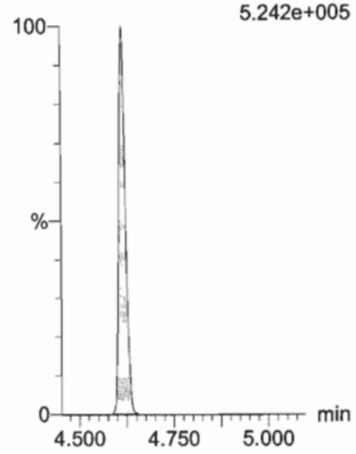

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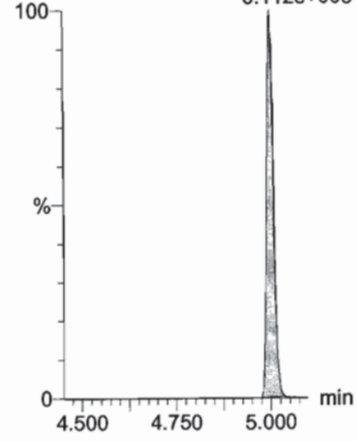

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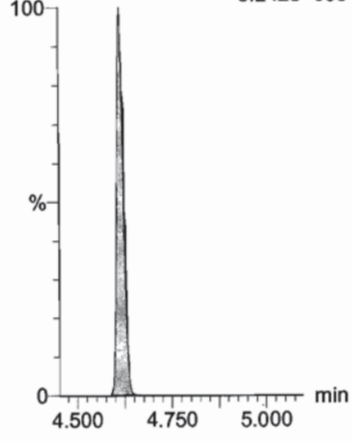

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Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-14, Date: 16-Dec-2017, Time: 17:10:07, ID: ST171216G2-6 PFC CS2 537 17L1423, Description: PFC CS2 537 17L1423

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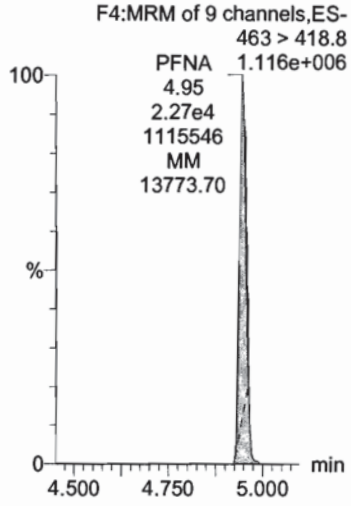

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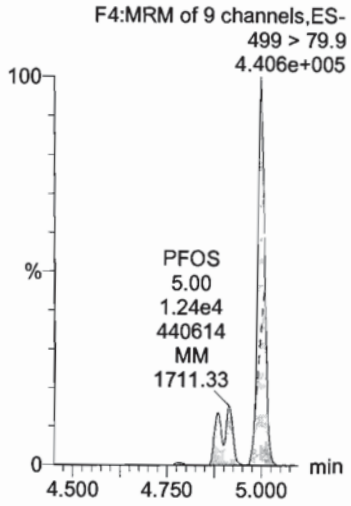

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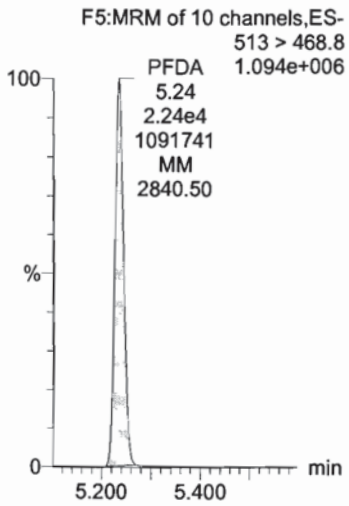

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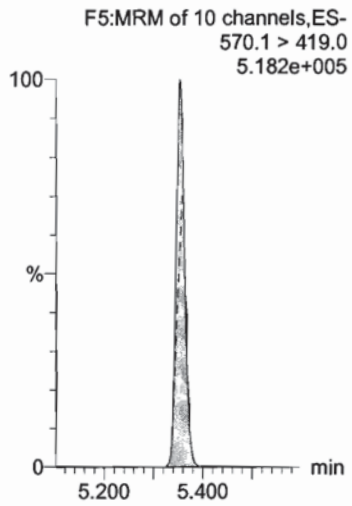

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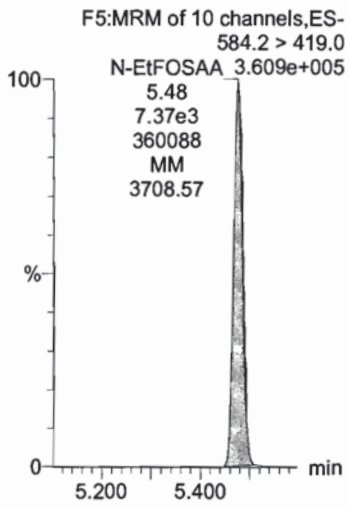

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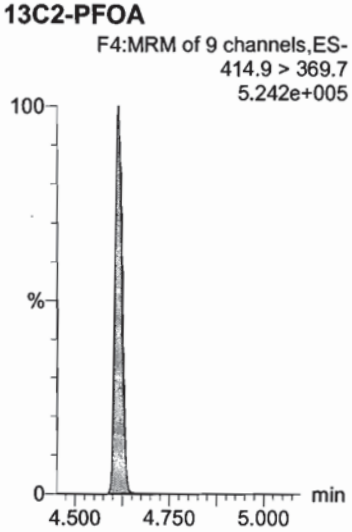

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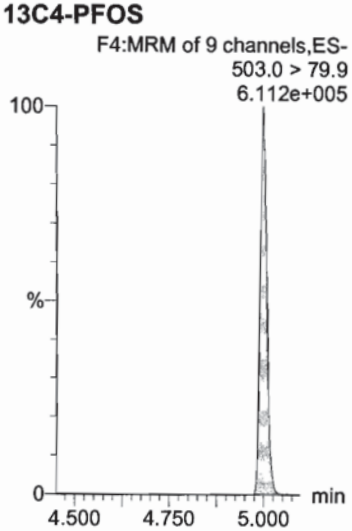

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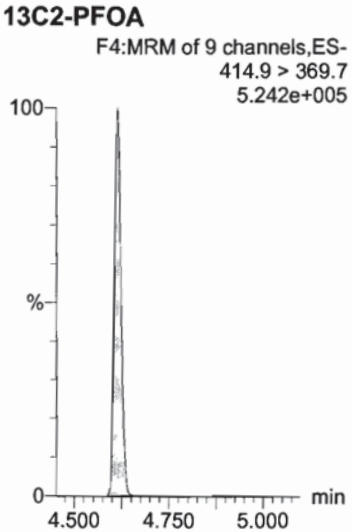

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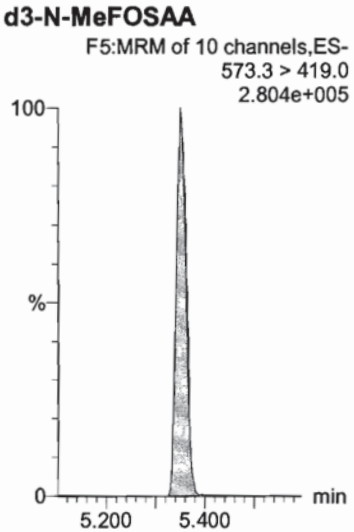

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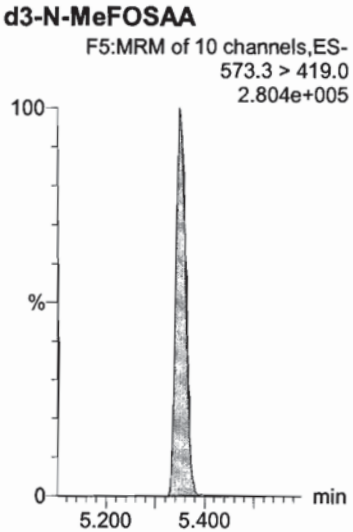

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Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-14, Date: 16-Dec-2017, Time: 17:10:07, ID: ST171216G2-6 PFC CS2 537 17L1423, Description: PFC CS2 537 17L1423

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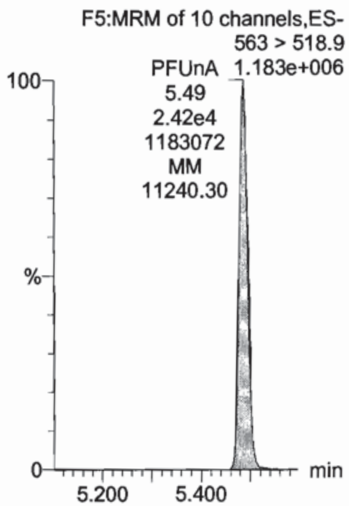

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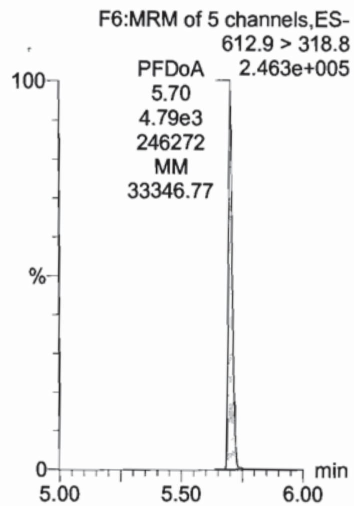

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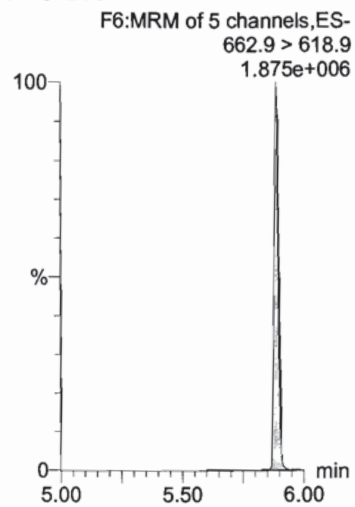

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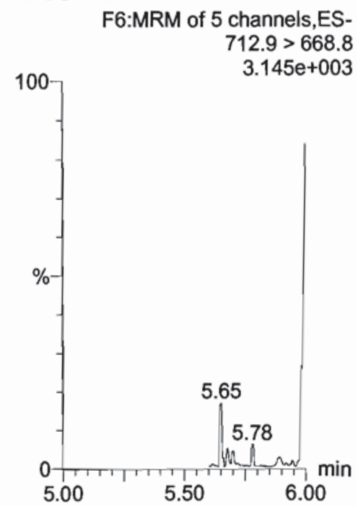

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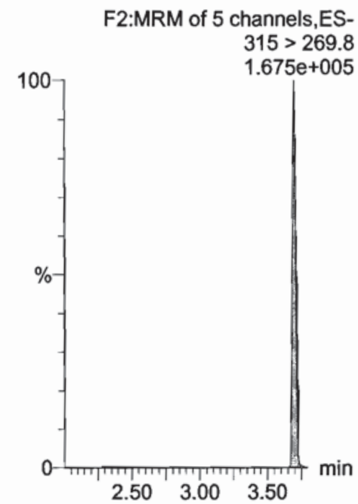

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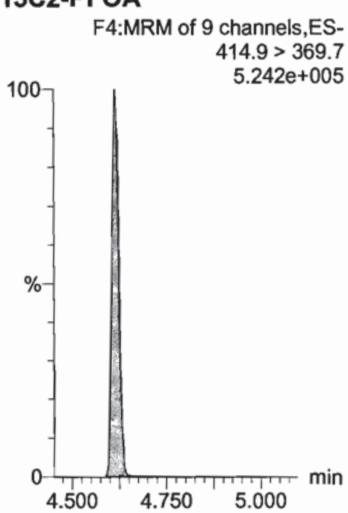

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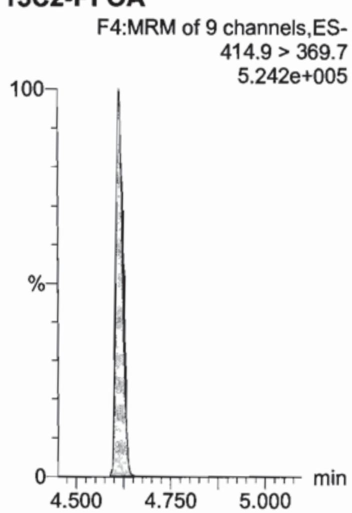

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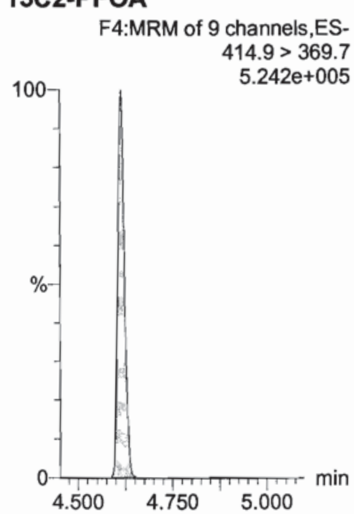

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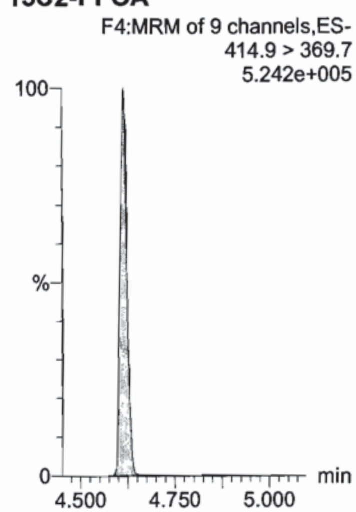

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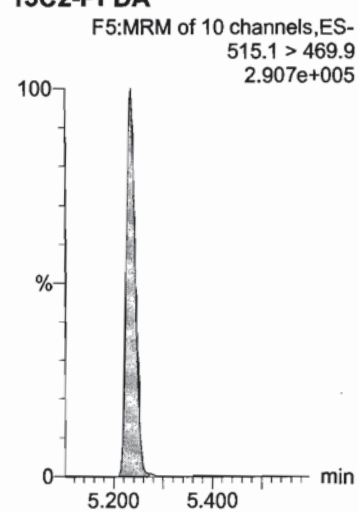
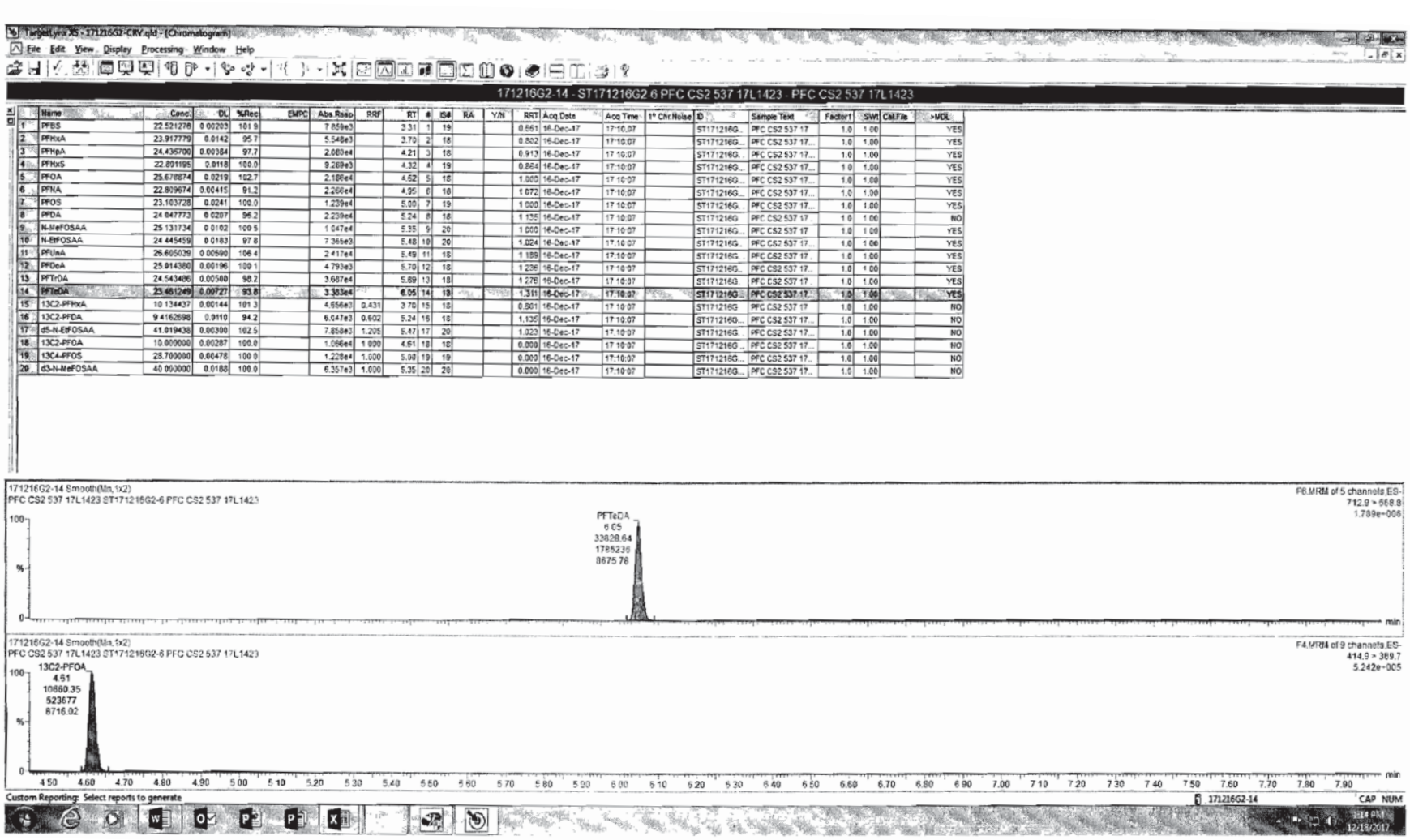




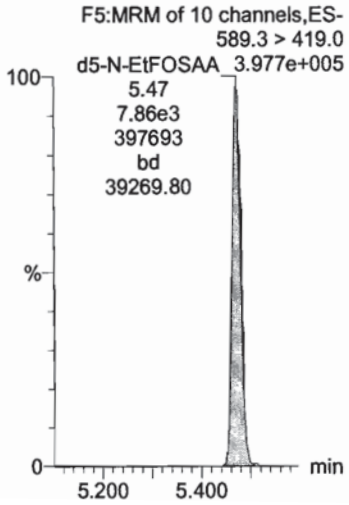
	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	SW1	Cal.File	>MDL
1	PFBS	22.521278	0.00203	101.9		7.859e3		3.31	1	19			0.661	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17	1.0	1.00		YES
2	PFHxA	23.917779	0.0142	95.7		5.548e3		3.79	2	18			0.802	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
3	PFHpA	24.436700	0.00364	97.7		2.080e4		4.21	3	18			0.913	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
4	PFHxS	22.891195	0.0118	100.0		9.269e3		4.32	4	19			0.864	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
5	PFOA	25.678874	0.0219	102.7		2.186e4		4.62	5	18			1.000	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
6	PFNA	22.809674	0.00415	91.2		2.266e4		4.95	6	18			1.072	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
7	PFOS	23.103728	0.0241	100.0		1.239e4		5.00	7	19			1.000	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
8	PFDA	24.647773	0.0297	96.2		2.239e4		5.24	8	18			1.135	16-Dec-17	17:10:07		ST171216G	PFC CS2 537 17	1.0	1.00		NO
9	N-MeFOSAA	25.131734	0.0102	100.5		1.047e4		5.35	9	20			1.000	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17	1.0	1.00		YES
10	N-EtFOSAA	24.445459	0.0183	97.8		7.365e3		5.48	10	20			1.024	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
11	PFUnA	26.605039	0.00590	106.4		2.417e4		5.49	11	18			1.189	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
12	PFDoA	25.914360	0.00196	100.1		4.793e3		5.70	12	18			1.236	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
13	PFTrDA	24.543486	0.00500	98.2		3.687e4		5.89	13	18			1.276	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		YES
14	PFTeDA	25.461249	0.00727	93.8		3.383e4		6.05	14	18			1.311	16-Dec-17	17:10:07		ST171216G	PFC CS2 537 17...	1.0	1.00		YES
15	13C2-PFHxA	10.134437	0.00144	101.3		4.656e3	0.431	3.70	15	18			0.801	16-Dec-17	17:10:07		ST171216G	PFC CS2 537 17	1.0	1.00		NO
16	13C2-PFDA	9.4162698	0.0110	94.2		6.047e3	0.602	5.24	16	18			1.135	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		NO
17	d5-N-EtFOSAA	41.019438	0.00390	102.5		7.858e3	1.205	5.47	17	20			1.023	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.00287	100.0		1.066e4	1.000	4.61	18	18			0.000	16-Dec-17	17:10:07		ST171216G ...	PFC CS2 537 17...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.00478	100.0		1.228e4	1.000	5.00	19	19			0.000	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0188	100.0		6.357e3	1.000	5.35	20	20			0.000	16-Dec-17	17:10:07		ST171216G...	PFC CS2 537 17...	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-14, Date: 16-Dec-2017, Time: 17:10:07, ID: ST171216G2-6 PFC CS2 537 17L1423, Description: PFC CS2 537 17L1423

d5-N-EtFOSAA



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Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-15, Date: 16-Dec-2017, Time: 17:22:33, ID: ST171216G2-7 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

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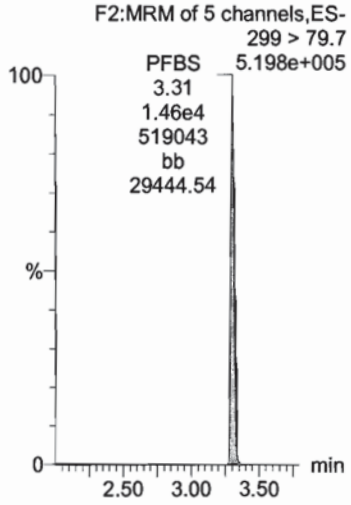

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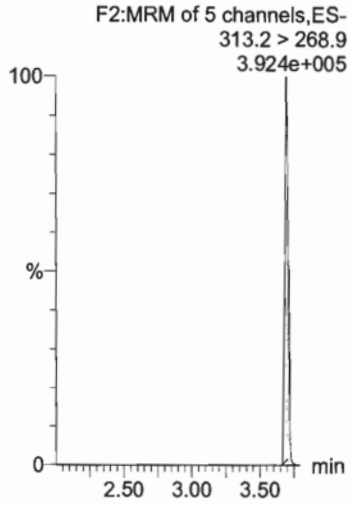

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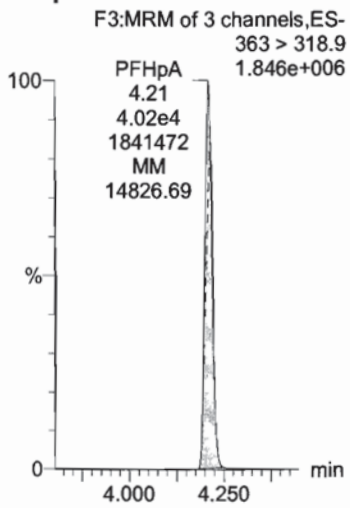

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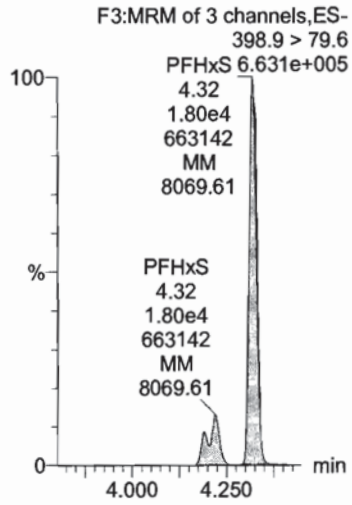

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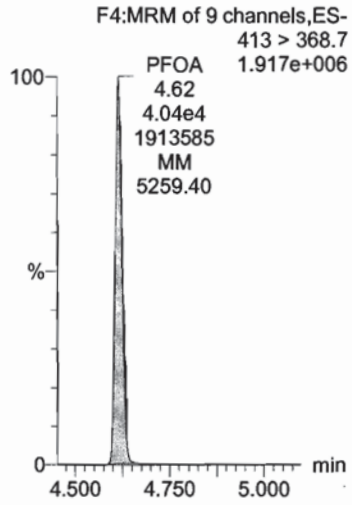
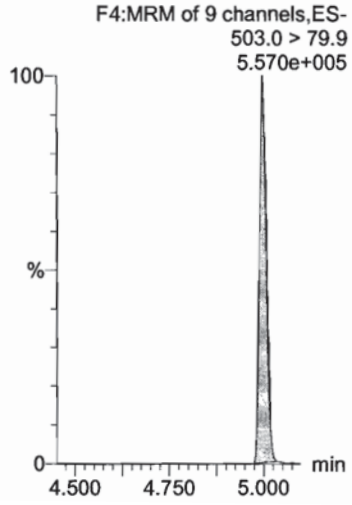


13C4-PFOS



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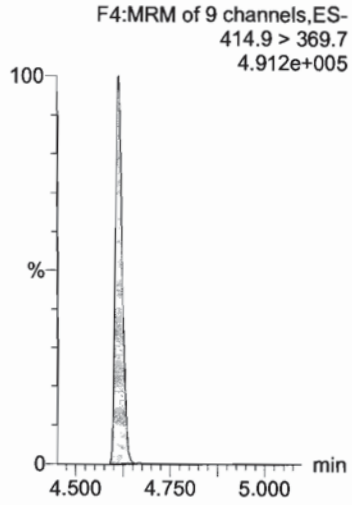

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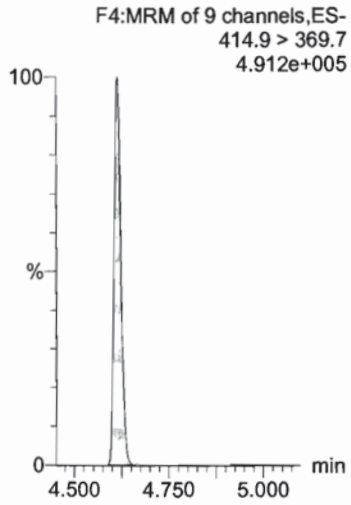

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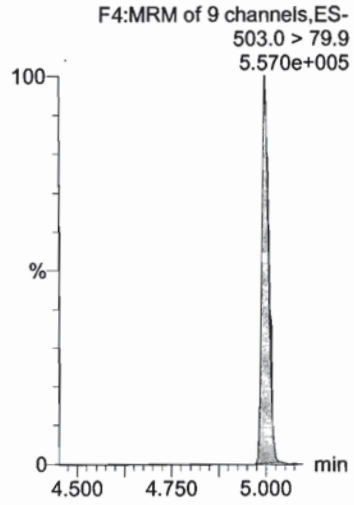

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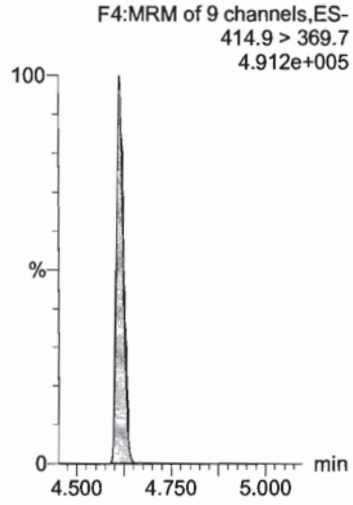

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Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-15, Date: 16-Dec-2017, Time: 17:22:33, ID: ST171216G2-7 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

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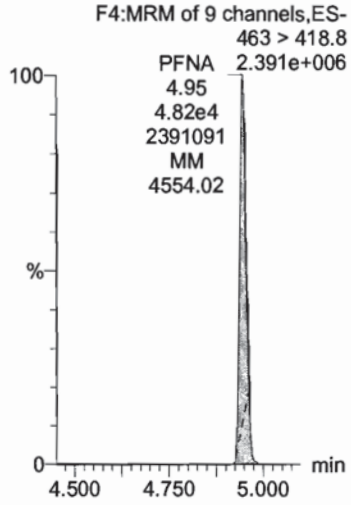

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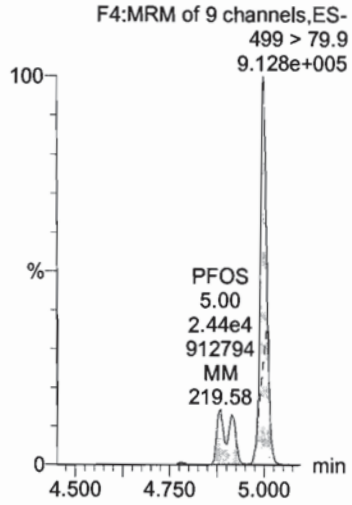

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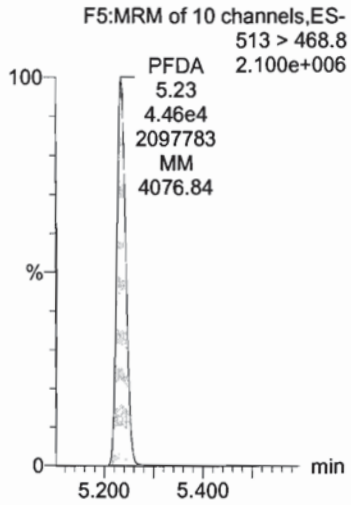
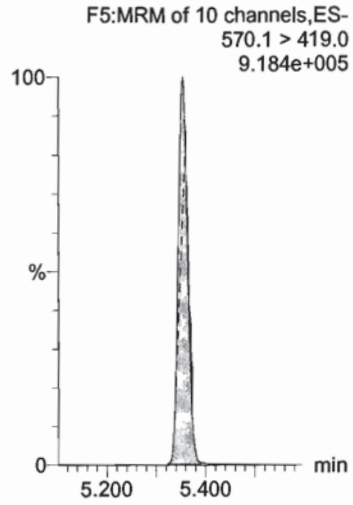
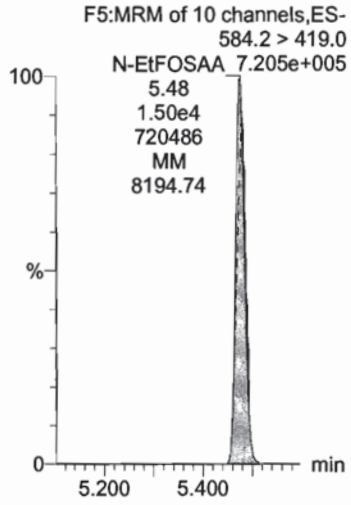


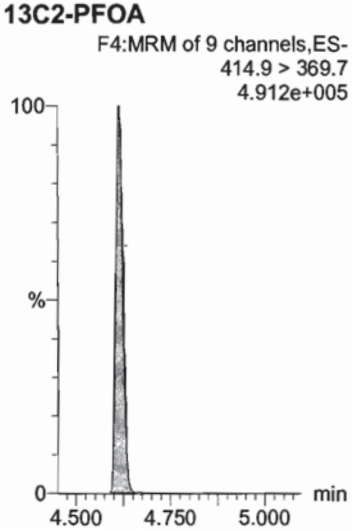
N-MeFOSAA



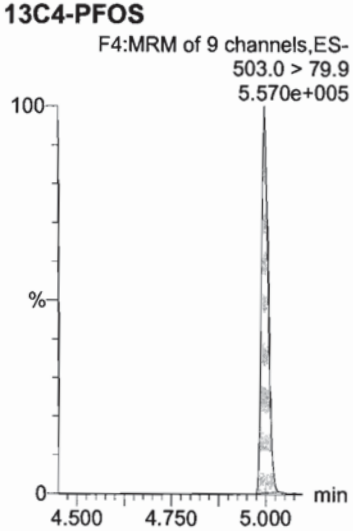
N-EtFOSAA



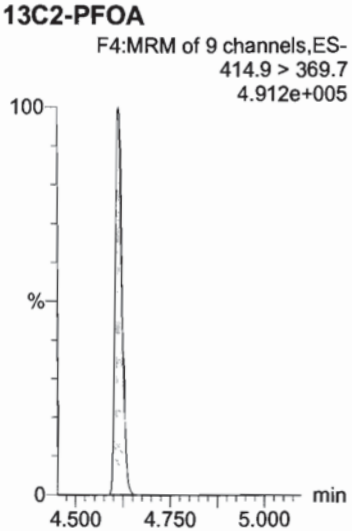
13C2-PFOA



13C4-PFOS



13C2-PFOA



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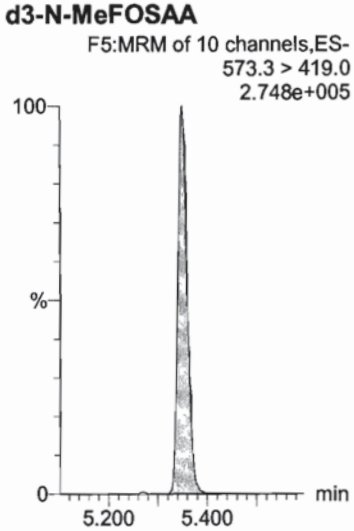

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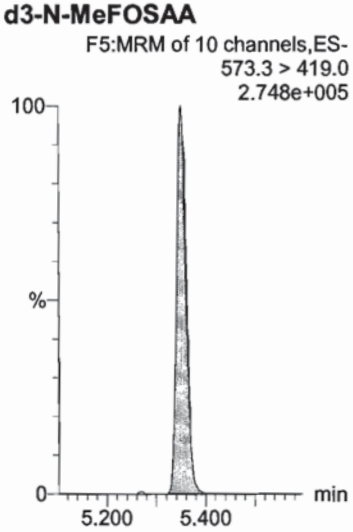

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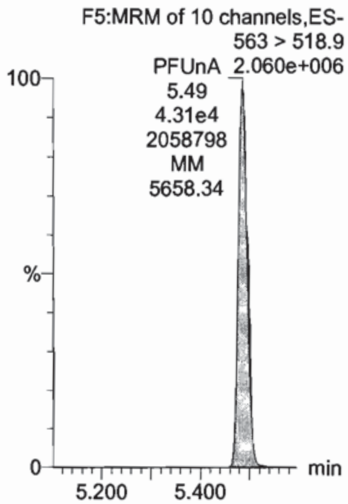
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-15, Date: 16-Dec-2017, Time: 17:22:33, ID: ST171216G2-7 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

PFUnA



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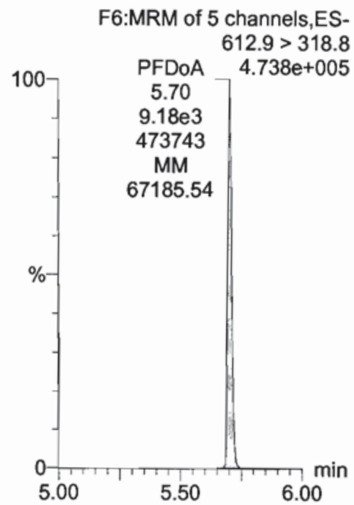

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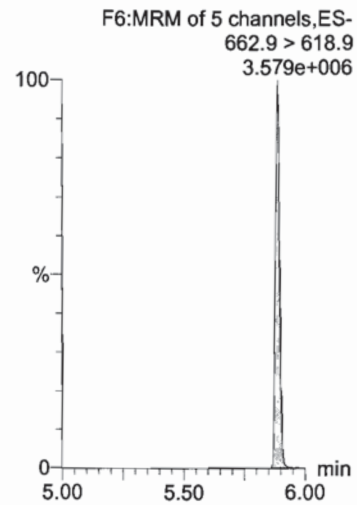
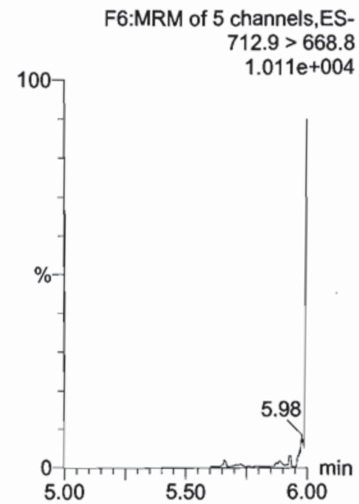
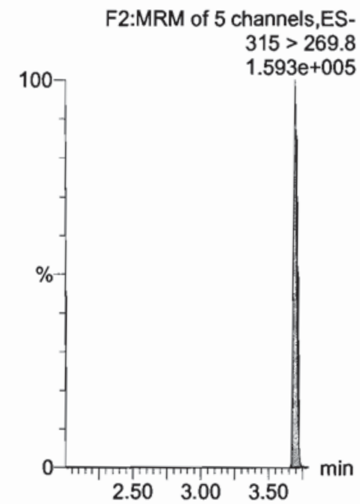


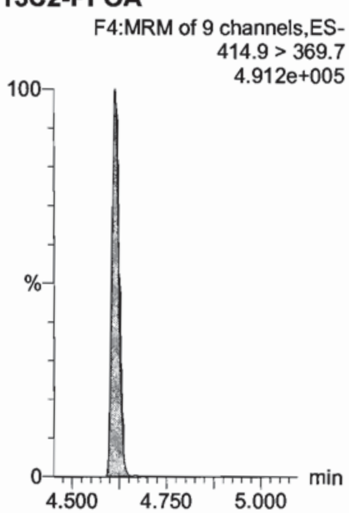
PFTeDA



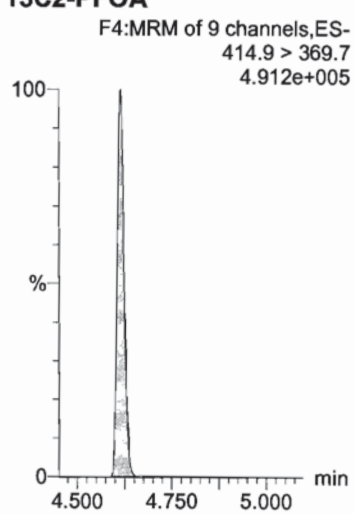
13C2-PFHxA



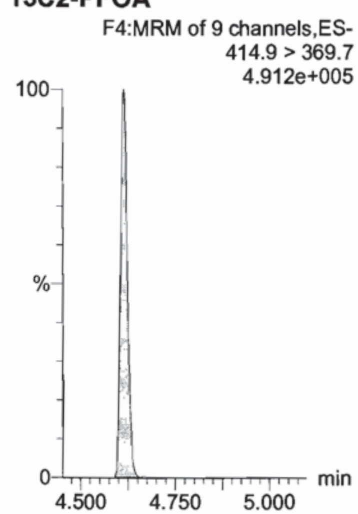
13C2-PFOA



13C2-PFOA



13C2-PFOA



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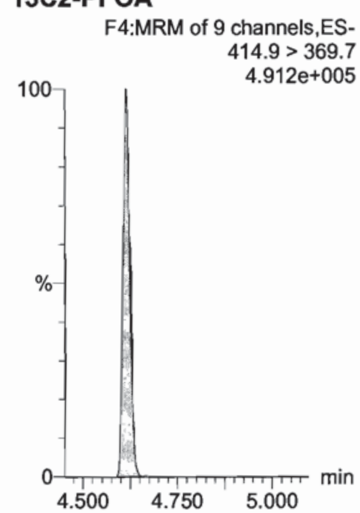

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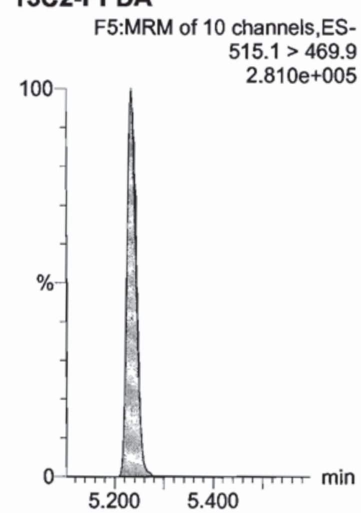
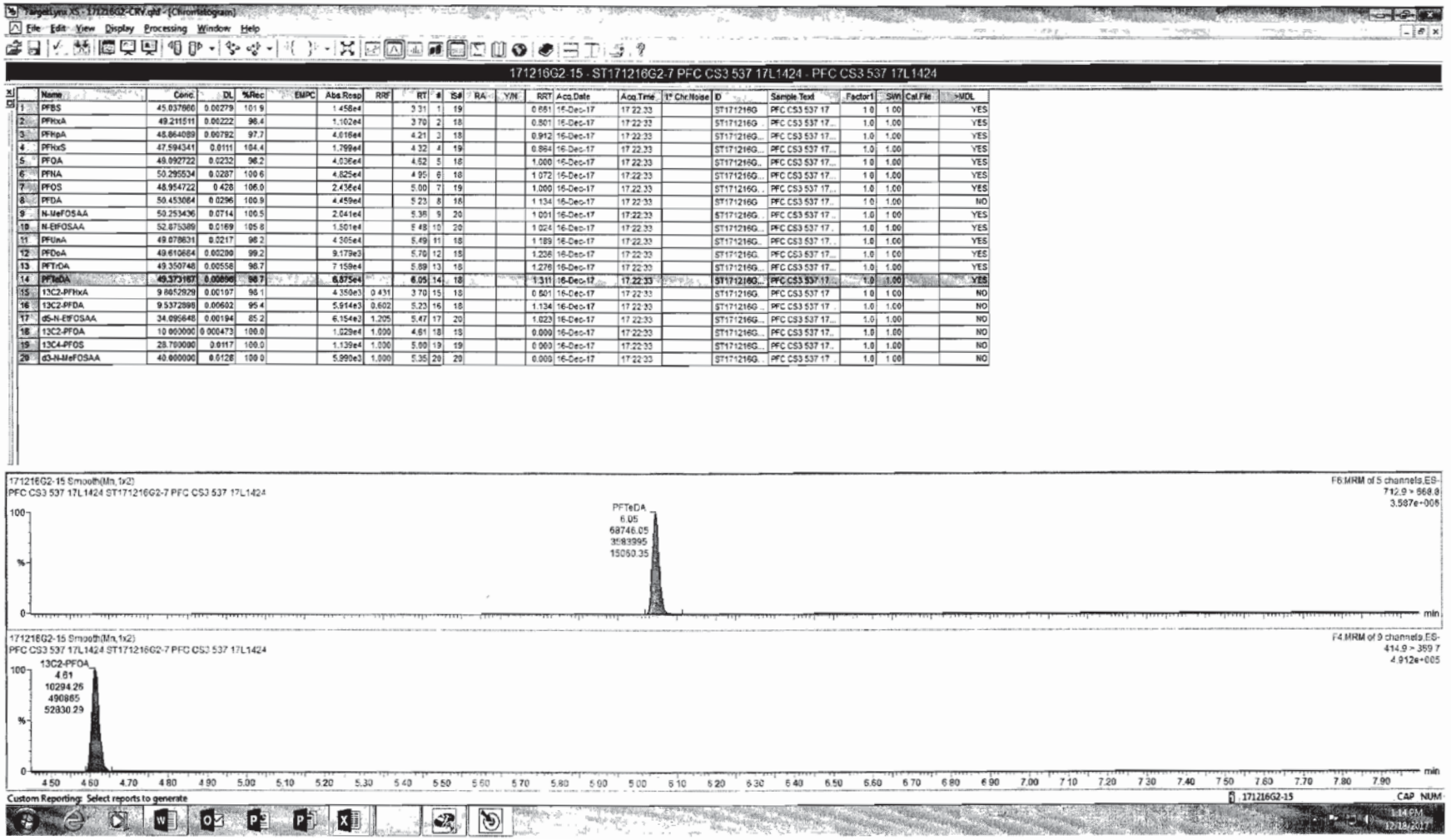




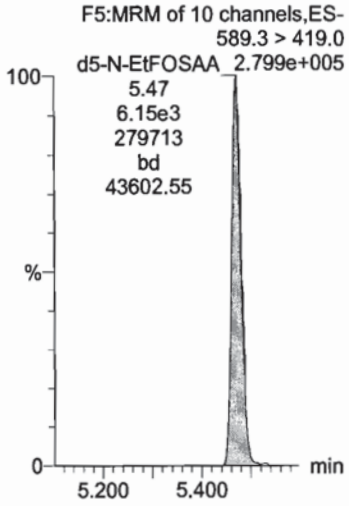
	Name	Conc.	DL	%Rec	EMPC	Abs.Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1° Chr.Noise	ID	Sample Text	Factor1	Sm	Cal.File	>MDL
1	PFBS	45.037660	0.00279	101.9		1.458e4		3.31	1	19			0.661	16-Dec-17	17:22:33		ST171216G	PFC CS3 537 17	1.0	1.00		YES
2	PFHxA	49.211511	0.00222	96.4		1.102e4		3.70	2	18			0.801	16-Dec-17	17:22:33		ST171216G	PFC CS3 537 17...	1.0	1.00		YES
3	PFHpA	48.864089	0.00792	97.7		4.016e4		4.21	3	18			0.912	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
4	PFHxS	47.594341	0.0111	104.4		1.799e4		4.32	4	19			0.864	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
5	PFOA	49.092722	0.0232	98.2		4.036e4		4.62	5	18			1.000	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
6	PFNA	50.295534	0.0287	100.6		4.825e4		4.95	6	18			1.072	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
7	PFOS	48.954722	0.428	106.0		2.436e4		5.00	7	19			1.000	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
8	PFDA	50.453064	0.0296	100.9		4.459e4		5.23	8	18			1.134	16-Dec-17	17:22:33		ST171216G	PFC CS3 537 17...	1.0	1.00		NO
9	N-MeFOSAA	50.253436	0.0714	100.5		2.041e4		5.36	9	20			1.001	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
10	N-EtFOSAA	52.875389	0.0169	105.8		1.501e4		5.48	10	20			1.024	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
11	PFUnA	49.078631	0.0217	98.2		4.305e4		5.49	11	18			1.189	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
12	PFDoA	49.610664	0.00299	99.2		9.179e3		5.76	12	18			1.238	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
13	PFTrDA	49.350748	0.00558	98.7		7.159e4		5.89	13	18			1.276	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
14	PFTeDA	49.373187	0.00896	98.7		6.875e4		6.05	14	18			1.311	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		YES
15	13C2-PFHxA	9.8652929	0.00197	98.1		4.358e3	0.431	3.70	15	18			0.801	16-Dec-17	17:22:33		ST171216G	PFC CS3 537 17	1.0	1.00		NO
16	13C2-PFDA	9.5372898	0.00602	95.4		5.914e3	0.602	5.23	16	18			1.134	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		NO
17	d5-N-EtFOSAA	34.095648	0.00194	85.2		6.154e3	1.205	5.47	17	20			1.023	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.000473	100.0		1.029e4	1.000	4.61	18	19			0.999	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.0117	100.0		1.139e4	1.000	5.00	19	19			0.999	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0128	100.0		5.999e3	1.000	5.35	20	20			0.999	16-Dec-17	17:22:33		ST171216G...	PFC CS3 537 17	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-15, Date: 16-Dec-2017, Time: 17:22:33, ID: ST171216G2-7 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

d5-N-EtFOSAA



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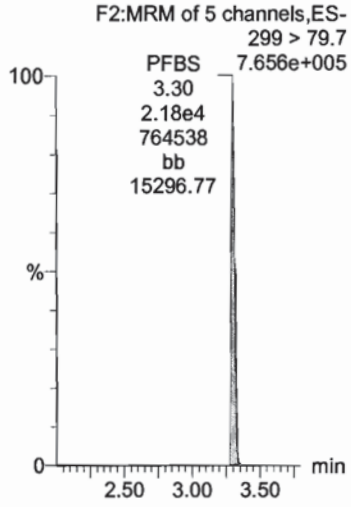
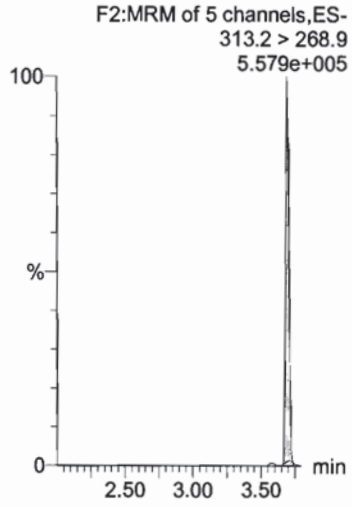
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-16, Date: 16-Dec-2017, Time: 17:35:01, ID: ST171216G2-8 PFC CS4 537 17L1425, Description: PFC CS4 537 17L1425

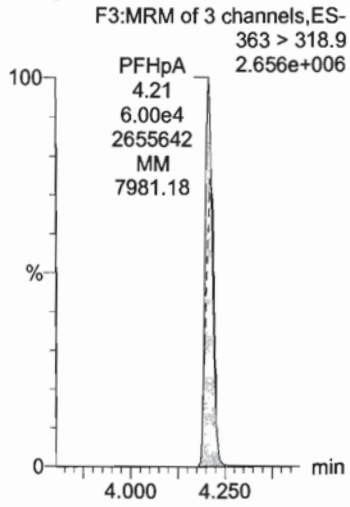
PFBS



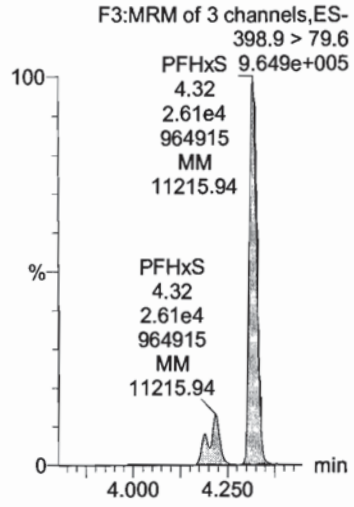
PFHxA



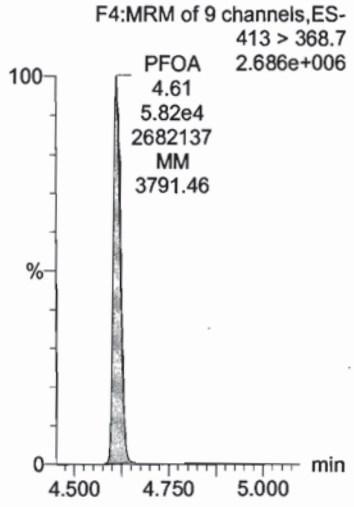
PFHpA



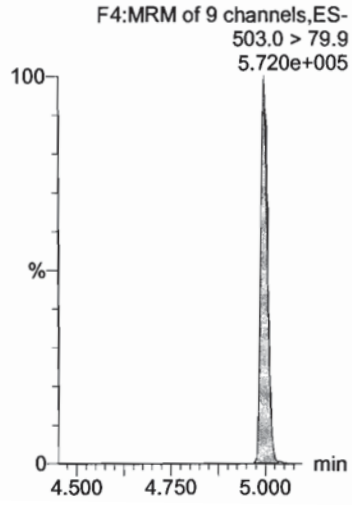
PFHxS



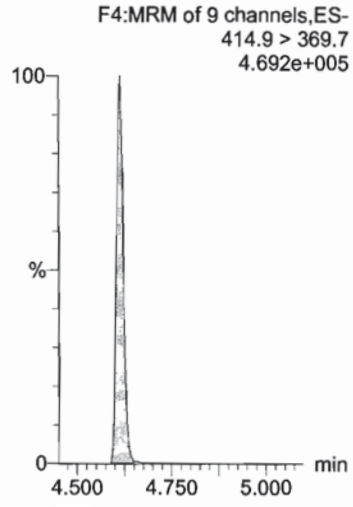
PFOA



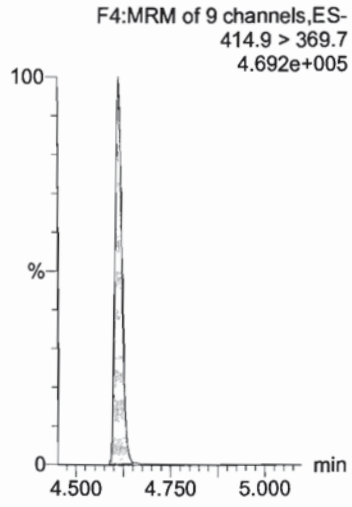
13C4-PFOS



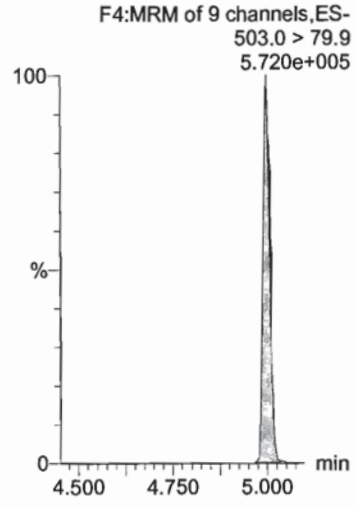
13C2-PFOA



13C2-PFOA



13C4-PFOS



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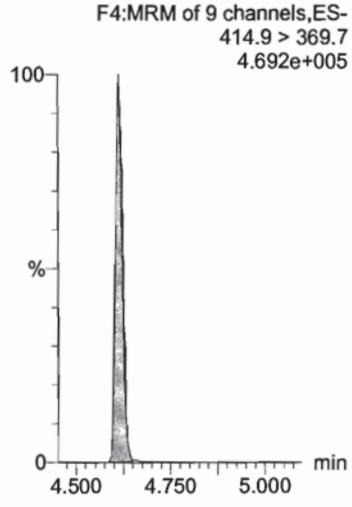

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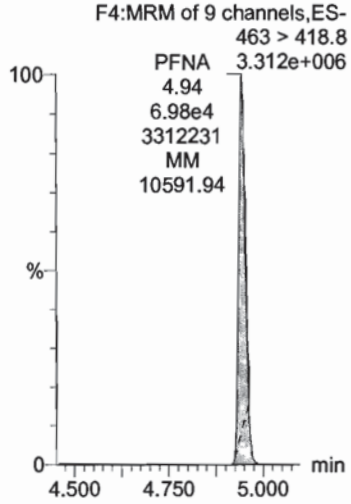
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-16, Date: 16-Dec-2017, Time: 17:35:01, ID: ST171216G2-8 PFC CS4 537 17L1425, Description: PFC CS4 537 17L1425

PFNA



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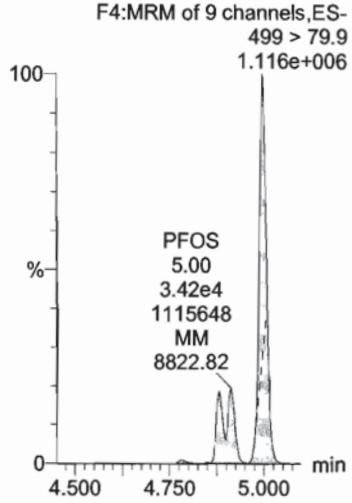
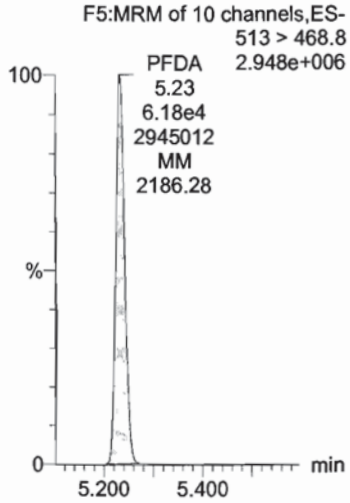
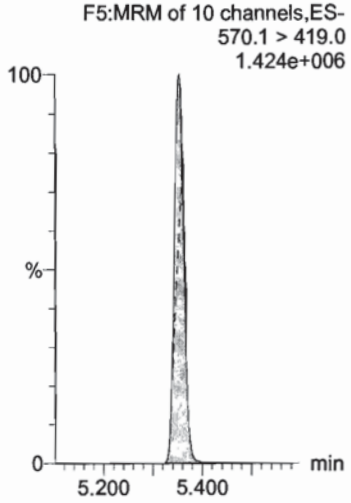


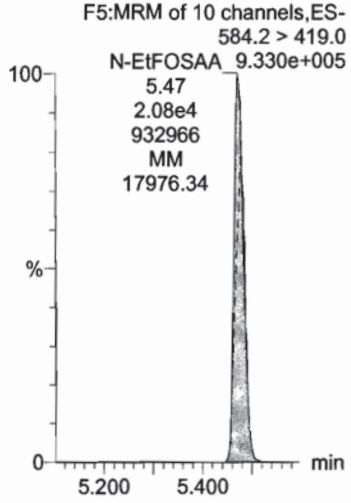
PFDA



N-MeFOSAA



N-EtFOSAA



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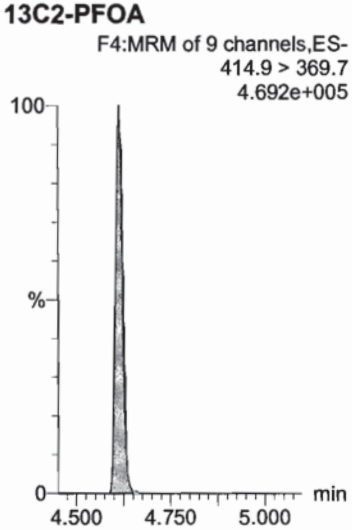
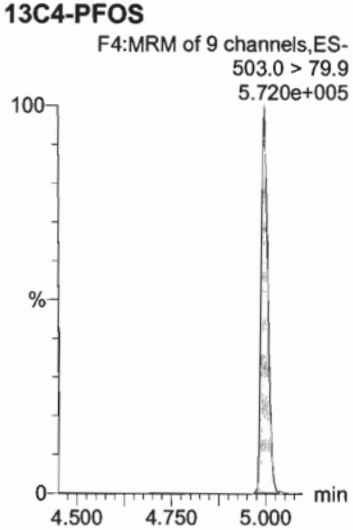
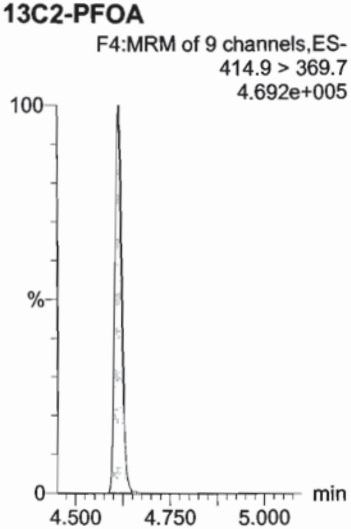


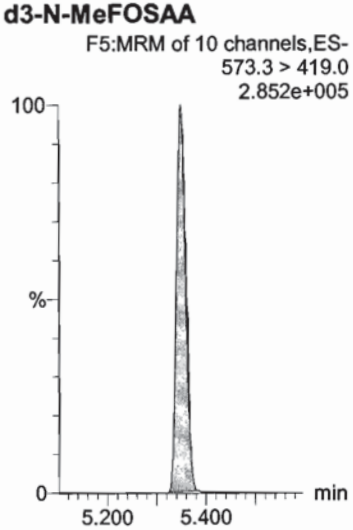
13C4-PFOS



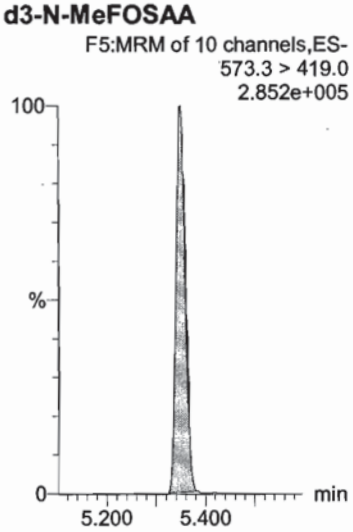
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



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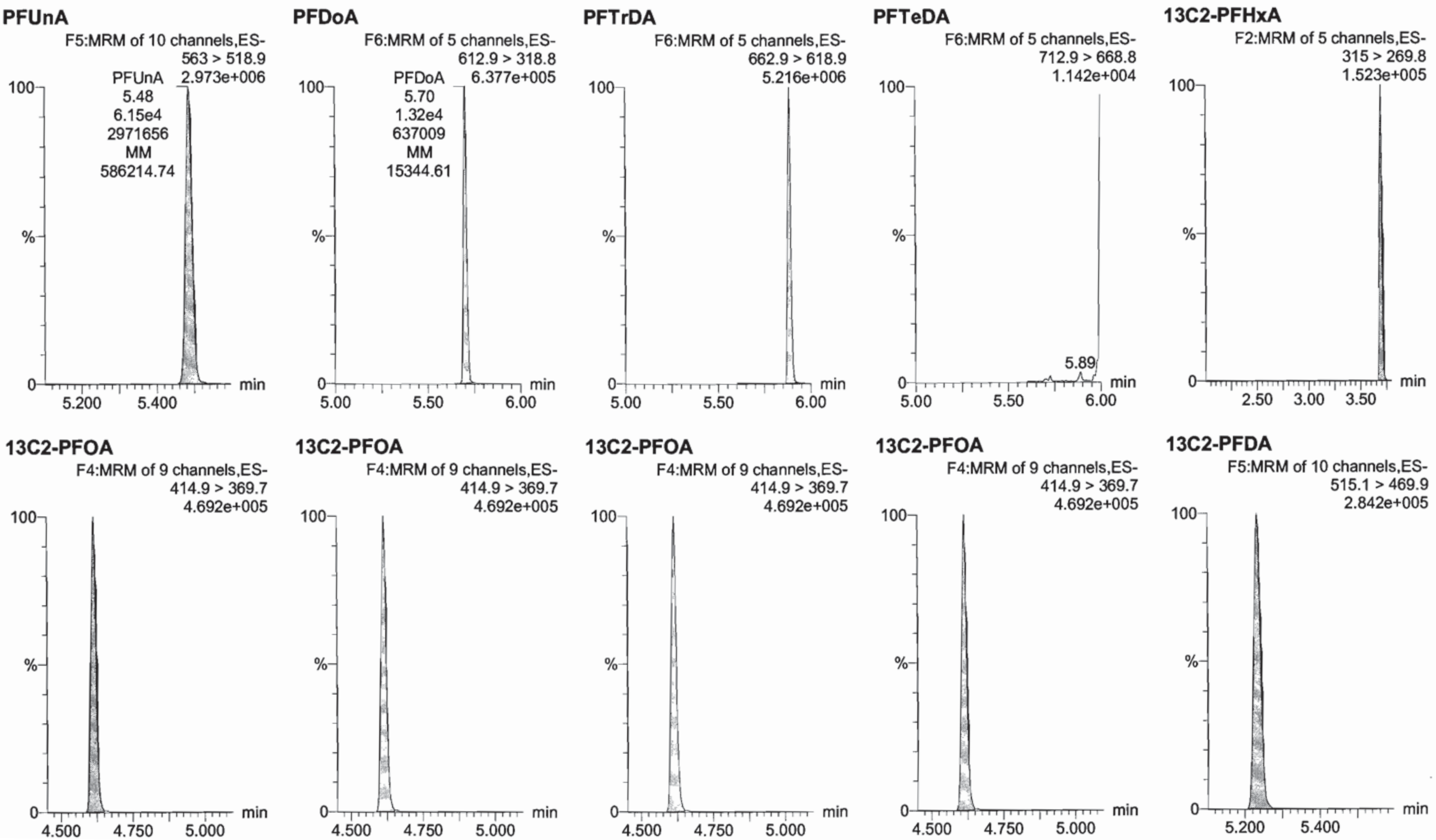
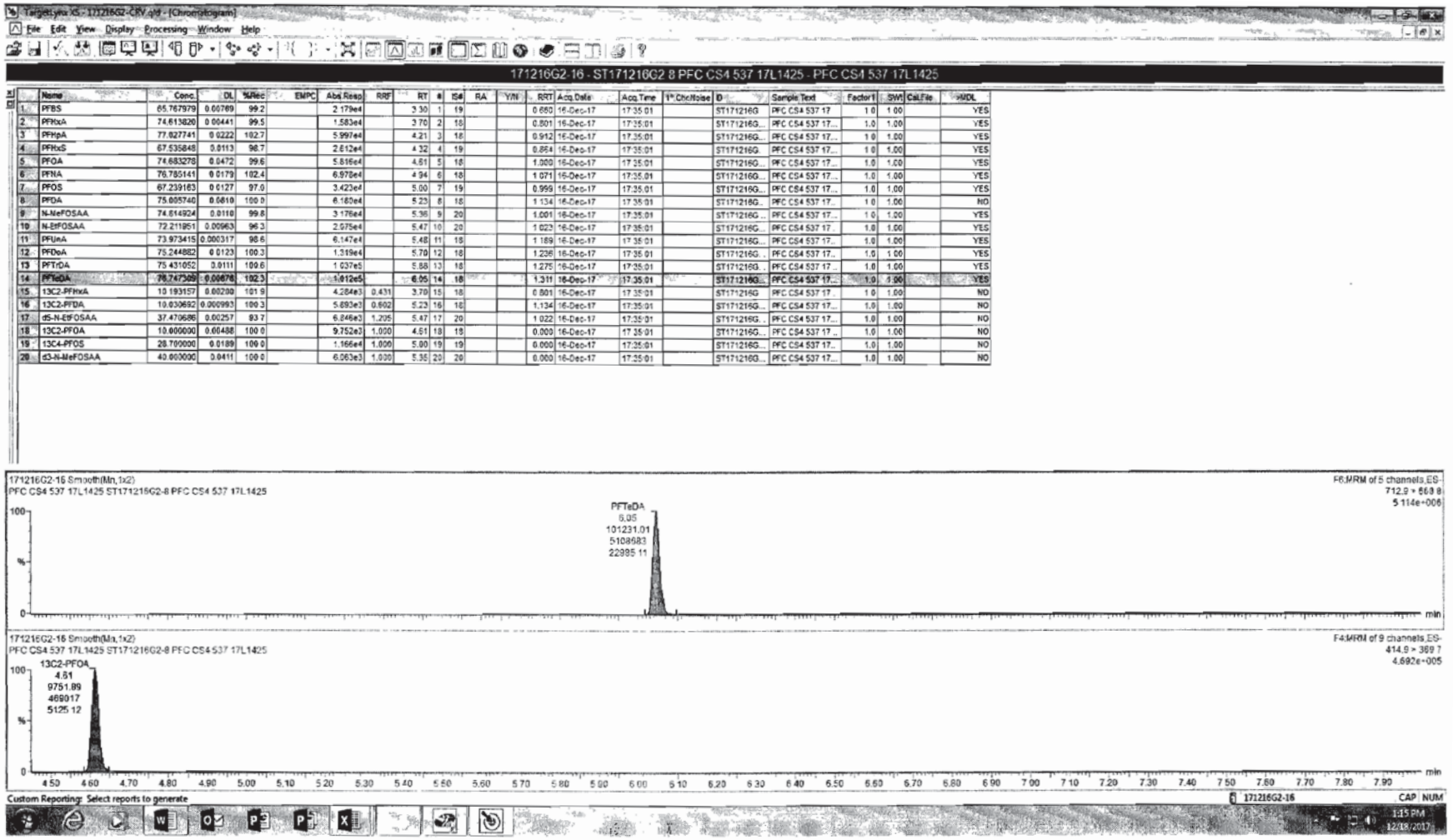
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-16, Date: 16-Dec-2017, Time: 17:35:01, ID: ST171216G2-8 PFC CS4 537 17L1425, Description: PFC CS4 537 17L1425





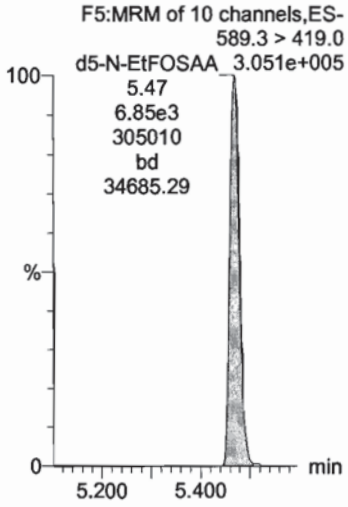
	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq Date	Acq Time	1st Chl Noise	ID	Sample Text	Factor	Sm	CalFile	MDL
1	PFBS	65.767979	0.00769	99.2		2.179e4		3.30	1	19			0.660	16-Dec-17	17:35:01		ST171216G	PFC CS4 537 17	1.0	1.00		YES
2	PFHxA	74.613820	0.00441	99.5		1.583e4		3.76	2	18			0.801	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
3	PFHpA	77.627741	0.0222	102.7		5.997e4		4.21	3	18			0.912	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
4	PFHxS	67.535848	0.0113	98.7		2.612e4		4.32	4	19			0.864	16-Dec-17	17:35:01		ST171216G	PFC CS4 537 17...	1.0	1.00		YES
5	PFOA	74.683278	0.0472	99.6		5.816e4		4.61	5	18			1.000	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
6	PFNA	76.785141	0.0179	102.4		6.978e4		4.94	6	18			1.071	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
7	PFOS	67.239183	0.0127	97.0		3.423e4		5.00	7	19			0.999	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
8	PFDA	75.005740	0.0810	100.0		6.180e4		5.23	8	18			1.134	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO
9	N-MeFOSAA	74.614924	0.0110	99.8		3.176e4		5.36	9	20			1.001	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
10	N-EtFOSAA	72.211951	0.00963	96.3		2.975e4		5.47	10	20			1.023	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
11	PFUnA	73.973415	0.000317	98.6		6.147e4		5.48	11	18			1.189	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
12	PFDoA	75.244882	0.0123	100.3		1.319e4		5.79	12	18			1.236	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
13	PFTrDA	75.431052	0.0111	100.6		1.037e5		5.88	13	18			1.275	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
14	PFTeDA	76.747509	0.00678	102.3		1.012e5		6.05	14	18			1.311	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		YES
15	13C2-PFHxA	10.193157	0.00230	101.9		4.284e3	0.431	3.79	15	18			0.801	16-Dec-17	17:35:01		ST171216G	PFC CS4 537 17...	1.0	1.00		NO
16	13C2-PFDA	10.030692	0.000993	100.3		5.693e3	0.602	5.23	16	18			1.134	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO
17	d5-N-EtFOSAA	37.470686	0.00257	93.7		6.846e3	1.205	5.47	17	20			1.022	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.00488	100.0		9.752e3	1.000	4.61	18	18			0.000	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.0189	109.0		1.166e4	1.000	5.00	19	19			0.000	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0411	109.0		6.063e3	1.000	5.36	20	20			0.000	16-Dec-17	17:35:01		ST171216G...	PFC CS4 537 17...	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-16, Date: 16-Dec-2017, Time: 17:35:01, ID: ST171216G2-8 PFC CS4 537 17L1425, Description: PFC CS4 537 17L1425

d5-N-EtFOSAA

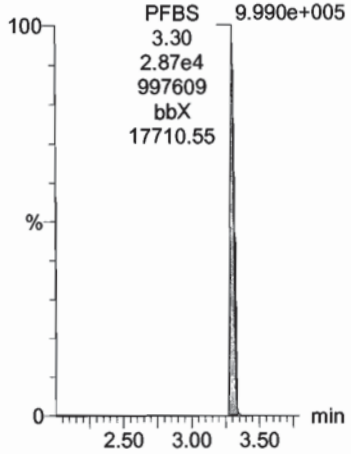


Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

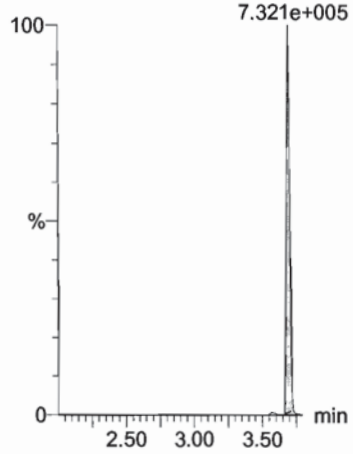
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-17, Date: 16-Dec-2017, Time: 17:47:29, ID: ST171216G2-9 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

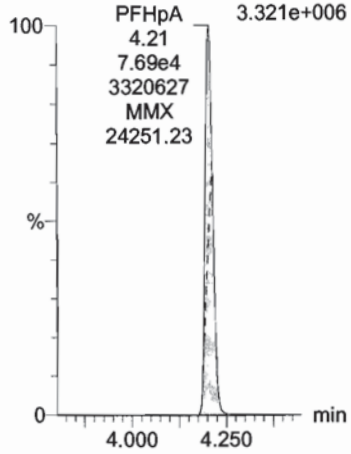
PFBS



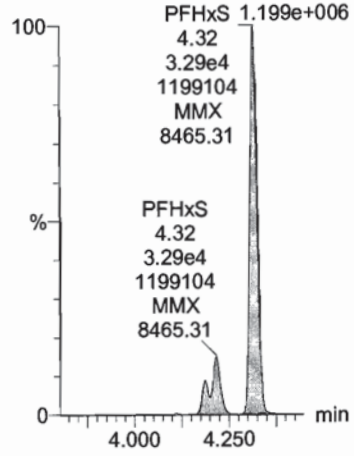
PFHxA



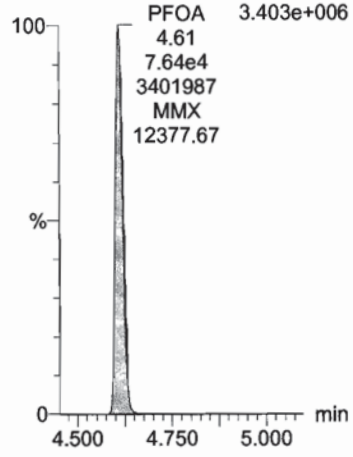
PFHpA



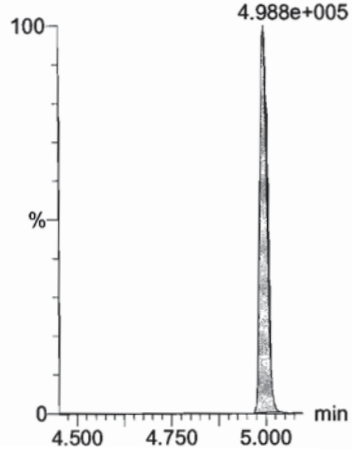
PFHxS



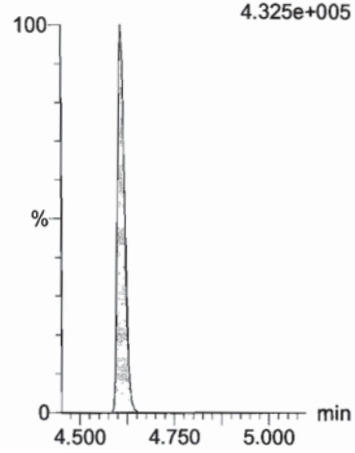
PFOA



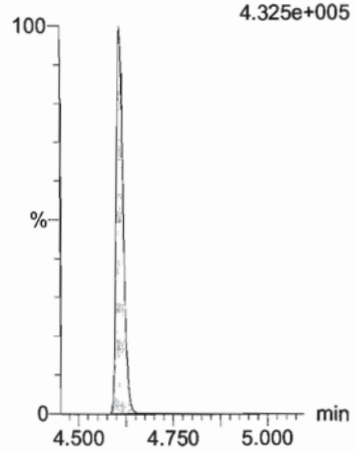
13C4-PFOS



13C2-PFOA



13C2-PFOA



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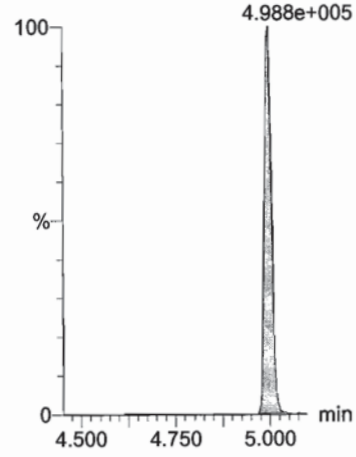
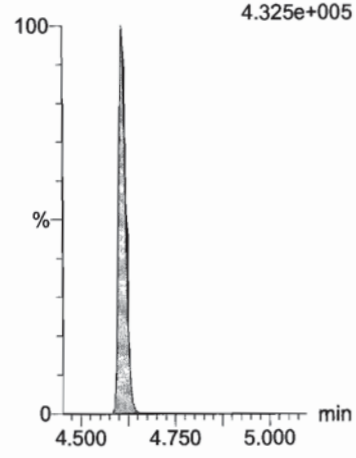


13C2-PFOA

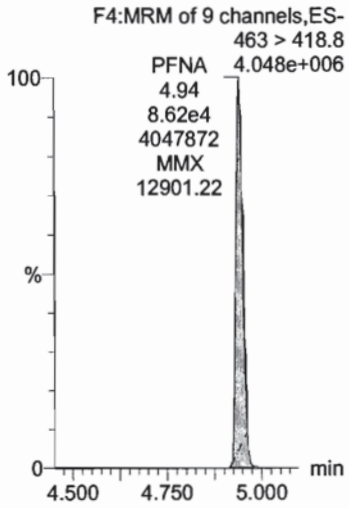


Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

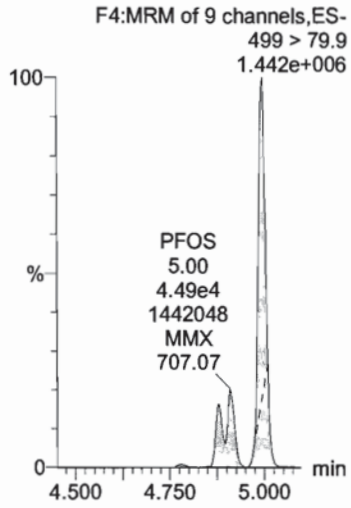
Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-17, Date: 16-Dec-2017, Time: 17:47:29, ID: ST171216G2-9 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

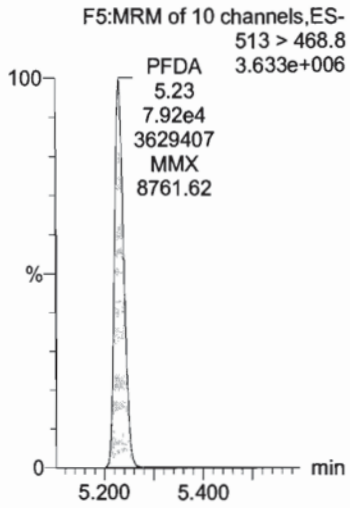
PFNA



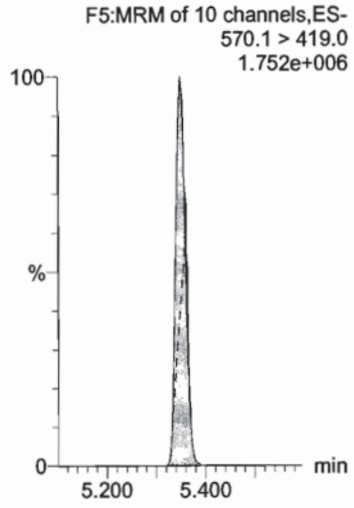
PFOS



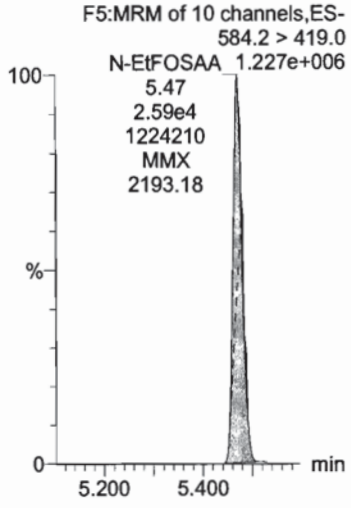
PFDA



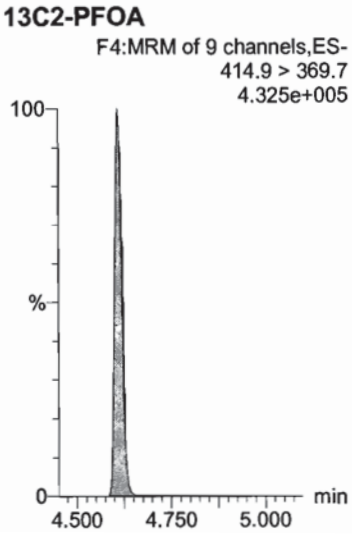
N-MeFOSAA



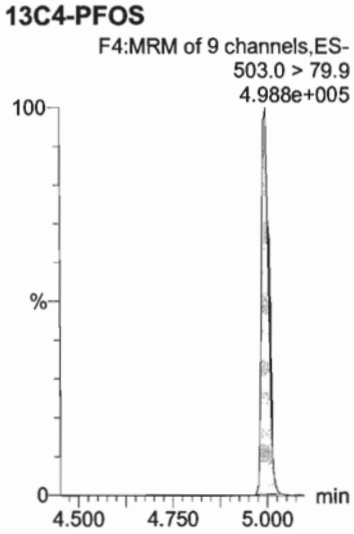
N-EtFOSAA



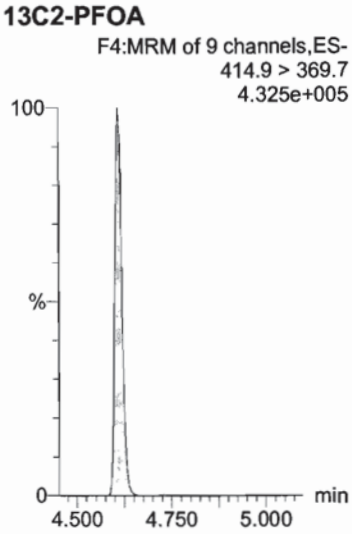
13C2-PFOA



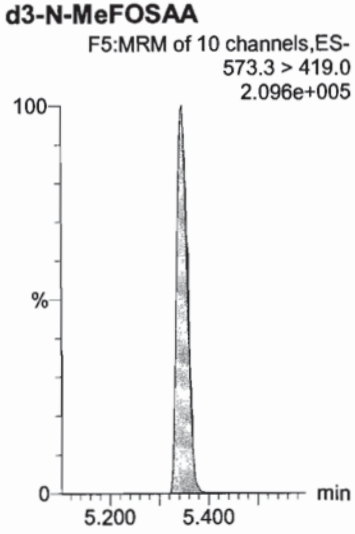
13C4-PFOS



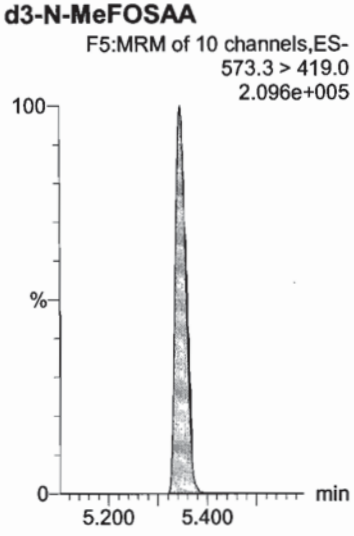
13C2-PFOA



d3-N-MeFOSAA



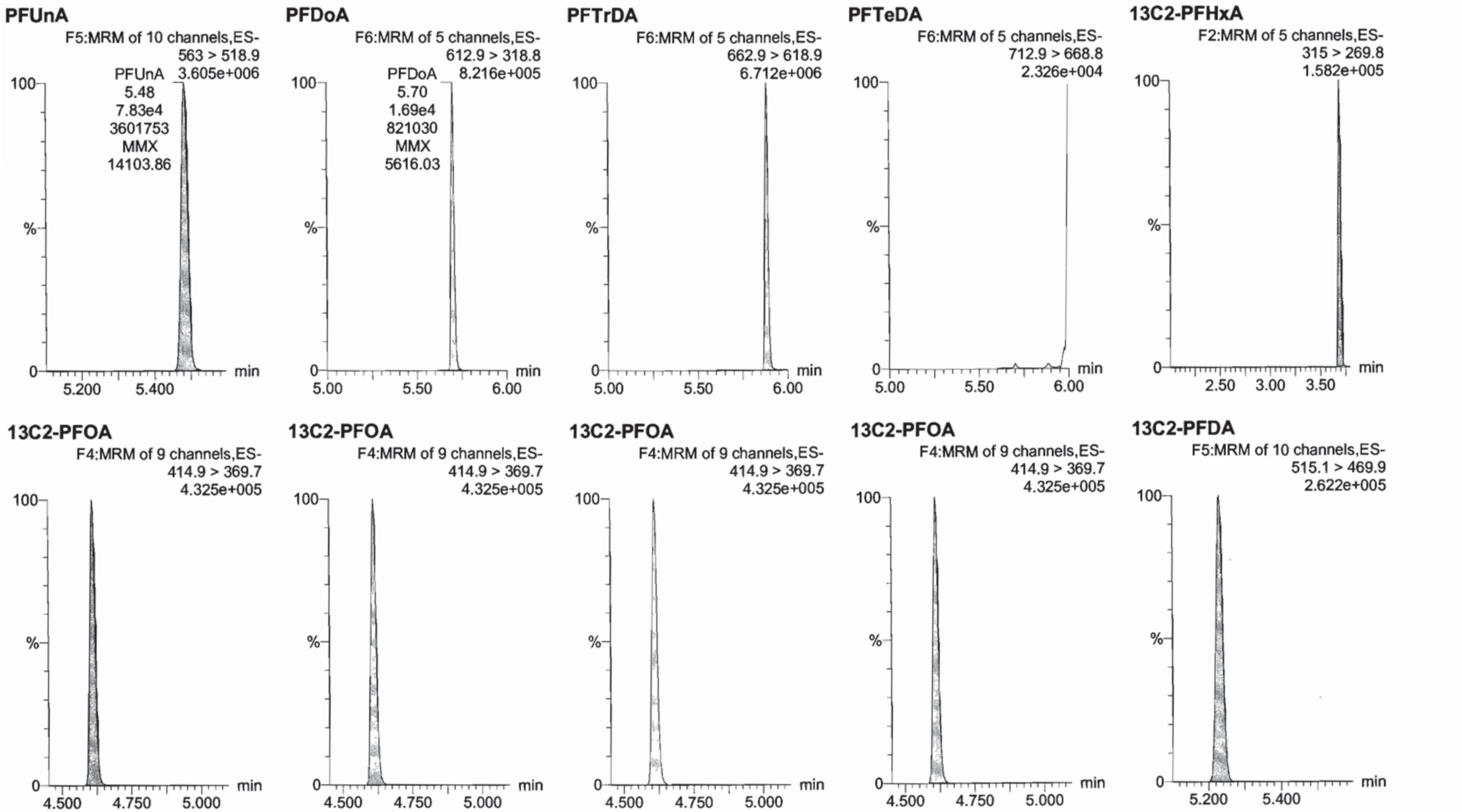
d3-N-MeFOSAA

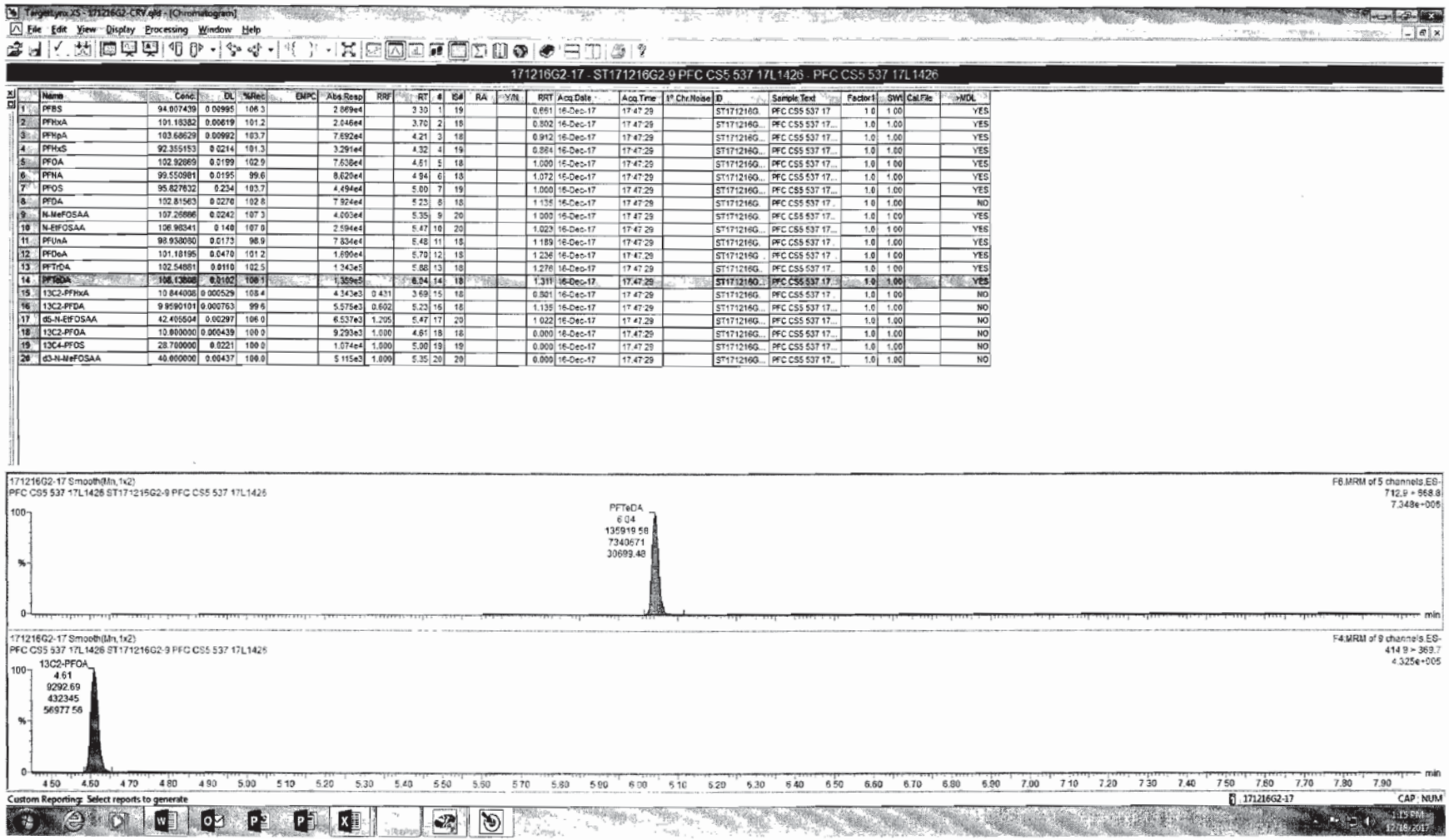


Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-17, Date: 16-Dec-2017, Time: 17:47:29, ID: ST171216G2-9 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426





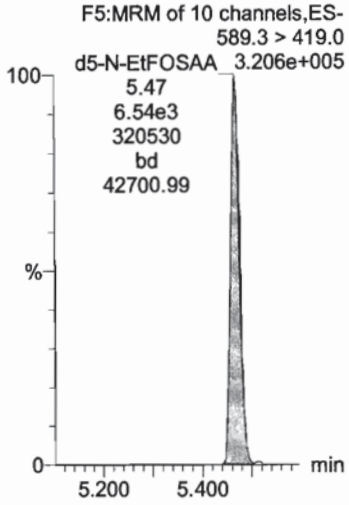
	Name	Conc	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq Date	Acq Time	1st Chr Noise	ID	Sample Text	Factor	SWI	Cal File	>MDL
1	PFBS	94.007439	0.00995	106.3		2.869e4		3.30	1	19			0.661	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17	1.0	1.00		YES
2	PFHxA	101.18382	0.00619	101.2		2.046e4		3.70	2	18			0.852	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
3	PFHpA	103.68629	0.00992	103.7		7.892e4		4.21	3	18			0.912	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
4	PFHxS	92.355153	0.0214	101.3		3.291e4		4.32	4	19			0.864	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
5	PFOA	102.92869	0.0199	102.9		7.638e4		4.61	5	18			1.000	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
6	PFNA	99.550981	0.0195	99.6		8.629e4		4.94	6	18			1.072	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
7	PFOS	95.827632	0.234	103.7		4.494e4		5.00	7	19			1.000	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
8	PFDA	102.81563	0.0270	102.8		7.924e4		5.23	8	18			1.135	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		NO
9	N-MeFOSAA	107.26866	0.0242	107.3		4.003e4		5.35	9	20			1.000	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		YES
10	N-EtFOSAA	106.98341	0.148	107.0		2.594e4		5.47	10	20			1.023	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		YES
11	PFUnA	98.938080	0.0173	98.9		7.834e4		5.48	11	18			1.189	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		YES
12	PFDoA	101.18195	0.0470	101.2		1.890e4		5.79	12	18			1.236	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		YES
13	PFTrDA	102.54881	0.0110	102.5		1.343e5		5.88	13	18			1.276	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		YES
14	PFTeDA	106.13848	0.3102	106.1		1.359e5		6.04	14	18			1.311	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		YES
15	13C2-PFHxA	10.844008	0.000529	108.4		4.343e3	0.431	3.69	15	18			0.901	16-Dec-17	17:47:29		ST171216G.	PFC CS5 537 17..	1.0	1.00		NO
16	13C2-PFDA	9.9590101	0.000763	99.6		5.575e3	0.602	5.23	16	18			1.135	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		NO
17	d5-N-EtFOSAA	42.405504	0.00297	106.0		6.537e3	1.205	5.47	17	20			1.022	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.000439	100.0		9.293e3	1.000	4.61	18	18			0.000	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		NO
19	13C4-PFOS	28.700000	0.0221	100.0		1.074e4	1.000	5.00	19	19			0.000	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.00437	100.0		5.115e3	1.000	5.35	20	20			0.000	16-Dec-17	17:47:29		ST171216G...	PFC CS5 537 17..	1.0	1.00		NO

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-CRV.qld

Last Altered: Monday, December 18, 2017 10:33:08 Pacific Standard Time
Printed: Monday, December 18, 2017 10:35:12 Pacific Standard Time

Name: 171216G2-17, Date: 16-Dec-2017, Time: 17:47:29, ID: ST171216G2-9 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

d5-N-EtFOSAA



Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-19.qld

Last Altered: Monday, December 18, 2017 10:52:41 Pacific Standard Time
Printed: Monday, December 18, 2017 10:53:25 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.pro\CurveDB\C18_537_Q1_12-16-17_L14.cdb 18 Dec 2017 10:33:08

MJT 12/18/17

Name: 171216G2-19, Date: 16-Dec-2017, Time: 18:12:21, ID: ICV171216G2-1 PFC ICV 537 17L1427, Description: PFC ICV 537 17L1427

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	3.55e3	1.41e4	1.0000		3.30	3.30	7.23	8.856	88.6
2	2	PFHxA	313.2 > 268.9	2.56e3	1.13e4	1.0000		3.69	3.69	2.26	10.375	103.7
3	3	PFHpA	363 > 318.9	8.76e3	1.13e4	1.0000		4.19	4.20	7.73	9.678	96.8
4	4	PFHxS	398.9 > 79.6	4.22e3	1.41e4	1.0000		4.32	4.31	8.59	9.018	90.2
5	5	PFOA	413 > 368.7	8.69e3	1.13e4	1.0000		4.61	4.61	7.66	9.597	96.0
6	6	PFNA	463 > 418.8	1.02e4	1.13e4	1.0000		4.98	4.94	9.04	9.697	97.0
7	7	PFOS	499 >79.9	5.72e3	1.41e4	1.0000		4.99	4.99	11.6	9.289	92.9
8	8	PFDA	513 > 468.8	9.89e3	1.13e4	1.0000		5.24	5.23	8.73	9.904	99.0
9	9	N-MeFOSAA	570.1 > 419.0	3.84e3	6.47e3	1.0000		5.35	5.35	23.7	9.259	92.6
10	10	N-EtFOSAA	584.2 >419.0	2.95e3	6.47e3	1.0000		5.47	5.47	18.2	9.616	96.2
11	11	PFUnA	563 > 518.9	9.45e3	1.13e4	1.0000		5.50	5.48	8.34	9.785	97.9
12	12	PFDoA	612.9 > 318.8	1.94e3	1.13e4	1.0000		5.72	5.70	1.71	9.496	95.0
13	13	PFTrDA	662.9 > 618.9	1.61e4	1.13e4	1.0000		5.83	5.88	14.2	10.081	100.8
14	14	PFTeDA	712.9 > 668.8	1.47e4	1.13e4	1.0000		6.01	6.04	13.0	9.583	95.8
15	15	13C2-PFHxA	315 > 269.8	4.62e3	1.13e4	1.0000	0.431	3.70	3.69	4.07	9.455	94.5
16	16	13C2-PFDA	515.1 > 469.9	6.32e3	1.13e4	1.0000	0.602	5.26	5.23	5.57	9.250	92.5
17	17	d5-N-EtFOSAA	589.3 > 419.0	8.06e3	6.47e3	1.0000	1.205	5.35	5.46	49.9	41.362	103.4
18	18	13C2-PFOA	414.9 > 369.7	1.13e4	1.13e4	1.0000	1.000	4.41	4.61	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.41e4	1.41e4	1.0000	1.000	4.81	4.99	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.47e3	6.47e3	1.0000	1.000	5.16	5.35	40.0	40.000	100.0

70% - 130%

✓ MJT 12/18/2017

Dataset: U:\G1.PRO\Results\2017\171216G2\171216G2-19.qld

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Printed: Monday, December 18, 2017 10:53:25 Pacific Standard Time

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Name: 171216G2-19, Date: 16-Dec-2017, Time: 18:12:21, ID: ICV171216G2-1 PFC ICV 537 17L1427, Description: PFC ICV 537 17L1427

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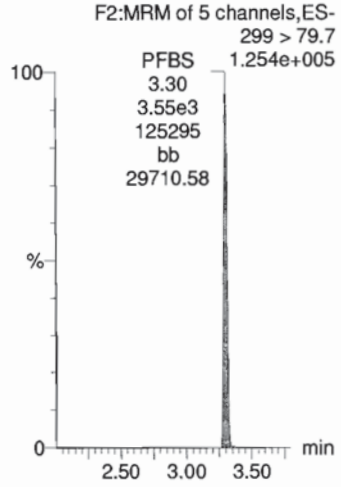

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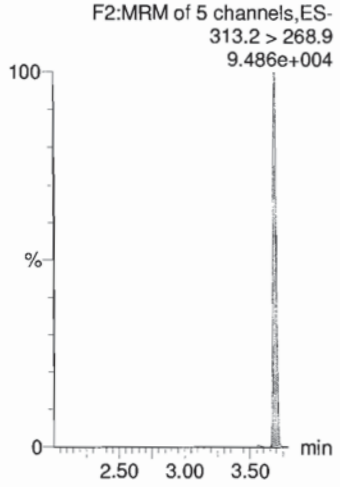

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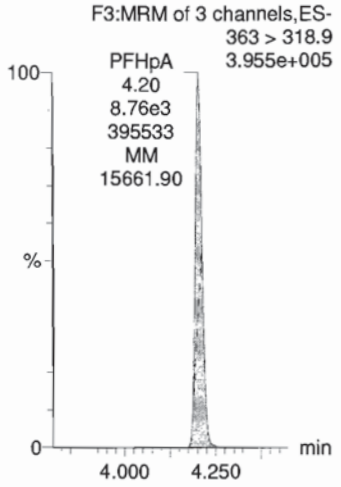

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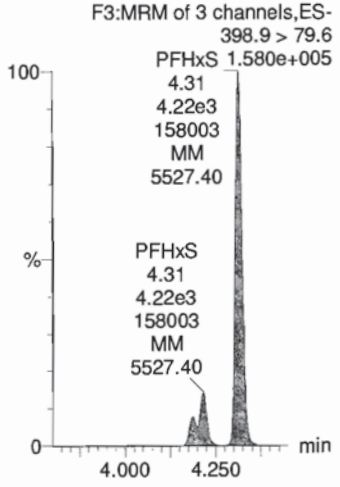
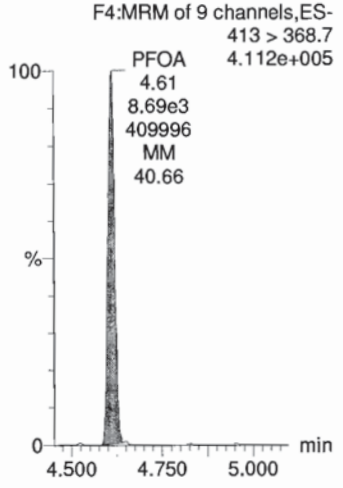


PFOA



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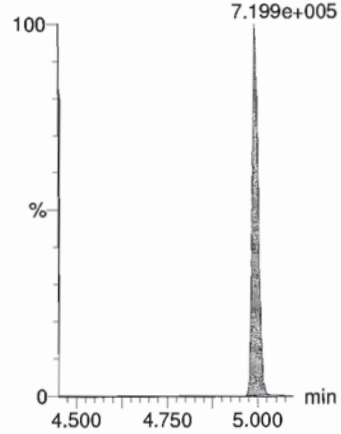

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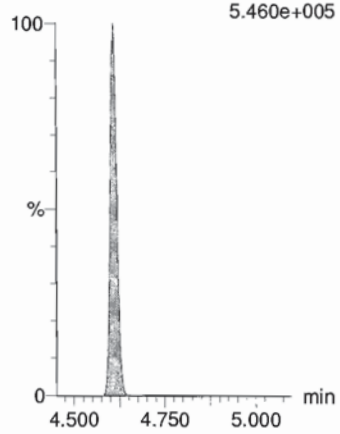

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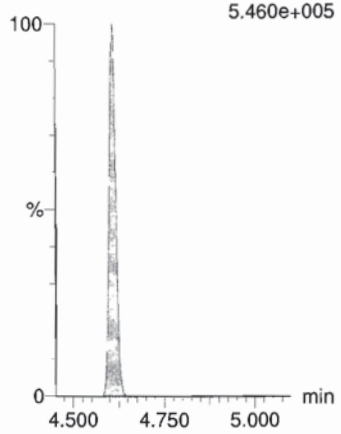

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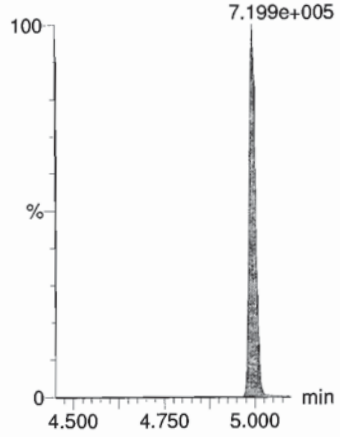

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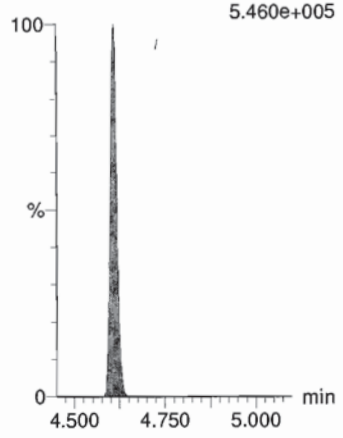

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Printed: Monday, December 18, 2017 10:53:25 Pacific Standard Time

Name: 171216G2-19, Date: 16-Dec-2017, Time: 18:12:21, ID: ICV171216G2-1 PFC ICV 537 17L1427, Description: PFC ICV 537 17L1427

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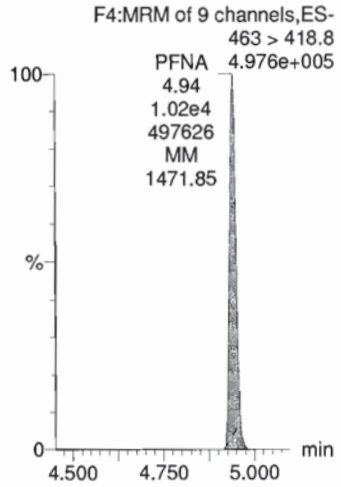

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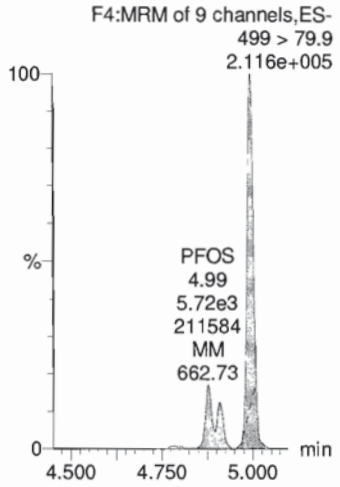

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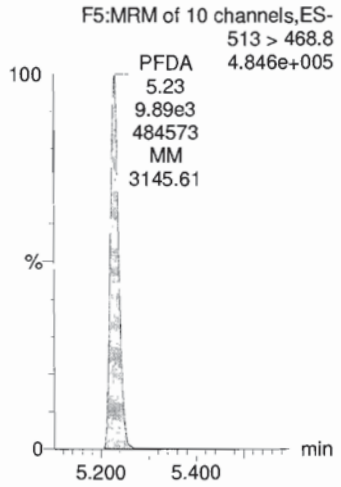

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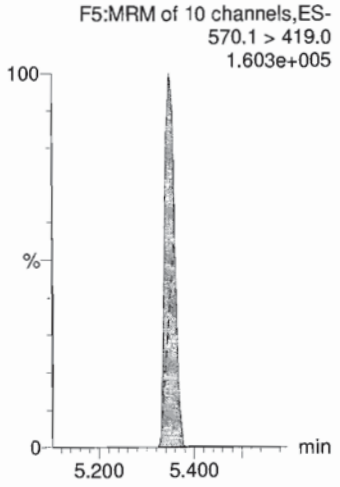

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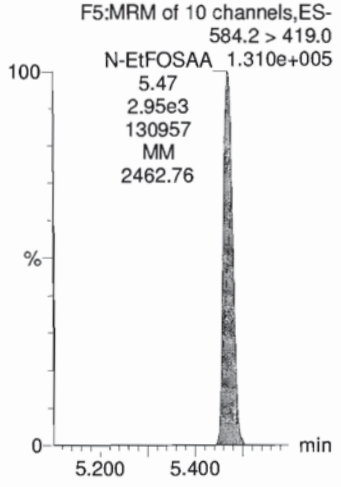

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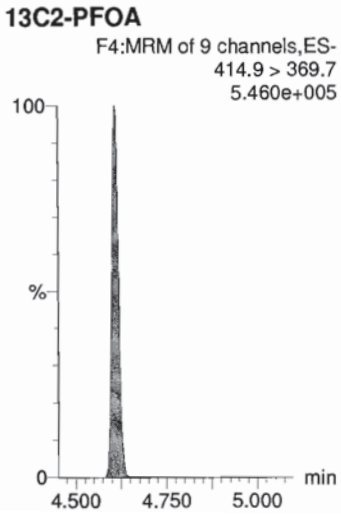

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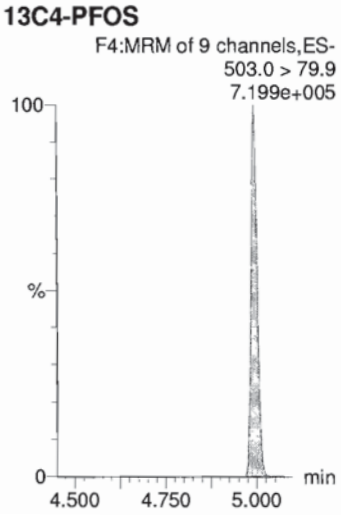

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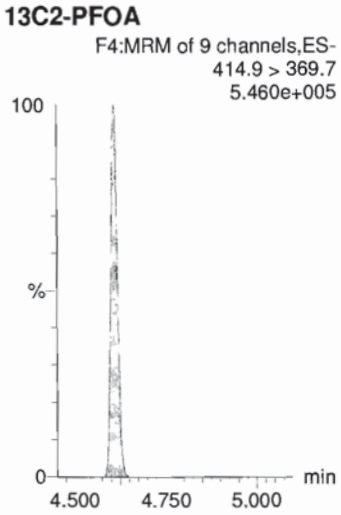

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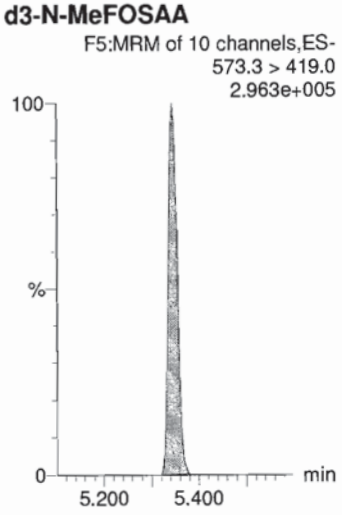

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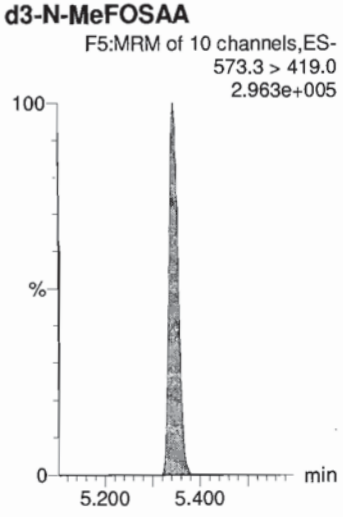

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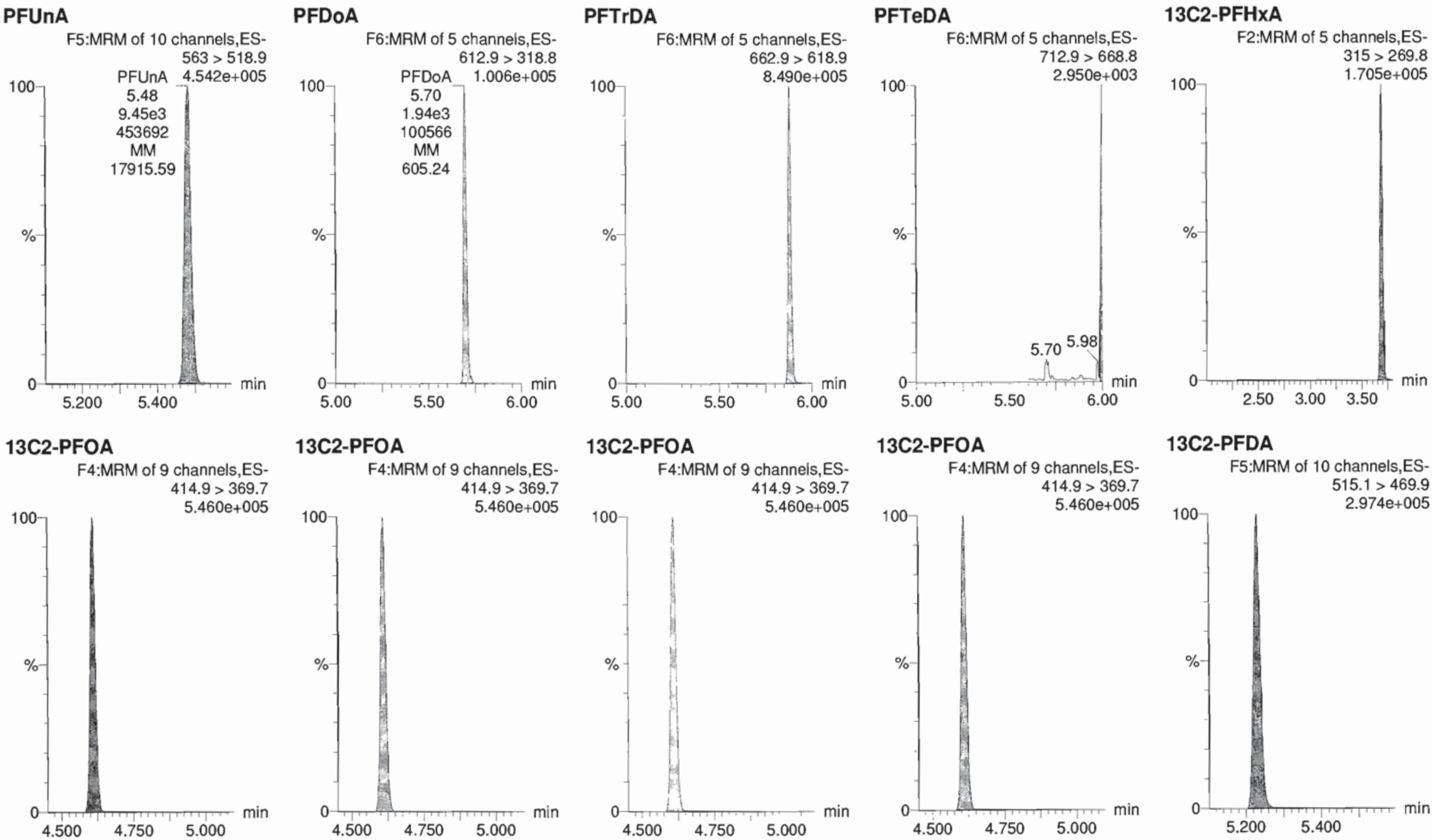

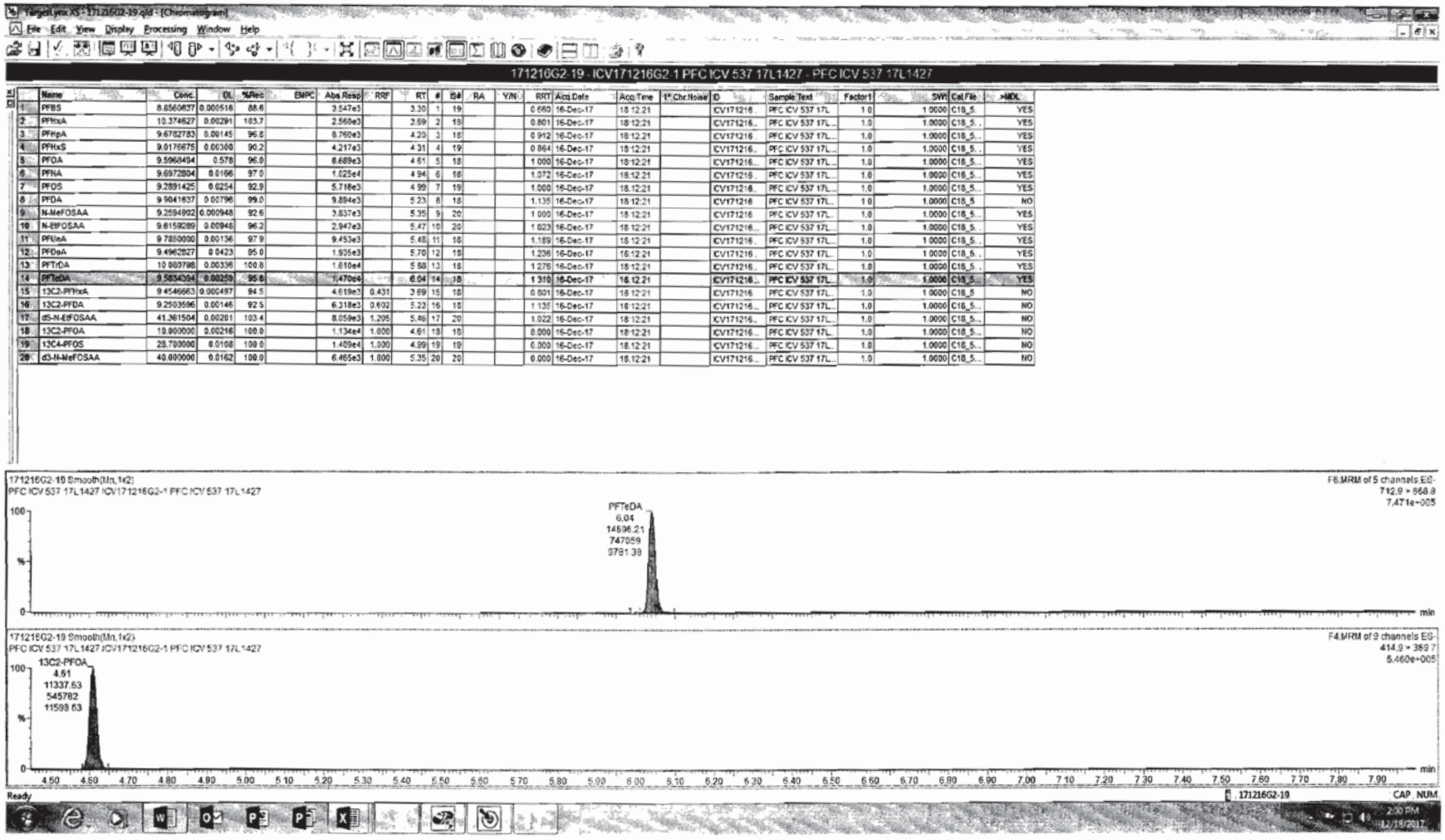

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1	PFBS	8.8560837	0.000516	88.6		3.547e3		3.30	1	19			0.660	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L	1.0	1.0000	C18_5...	YES
2	PFHxA	10.374627	0.00291	103.7		2.560e3		3.59	2	18			0.801	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
3	PFHpA	9.6782783	0.00145	96.8		8.760e3		4.20	3	18			0.912	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
4	PFHxS	9.0176875	0.00300	90.2		4.217e3		4.31	4	19			0.864	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
5	PFOA	9.5968494	0.578	96.0		8.689e3		4.61	5	18			1.000	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
6	PFNA	9.6972804	0.0166	97.0		1.625e4		4.94	6	18			1.072	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
7	PFOS	9.2891425	0.0254	92.9		5.718e3		4.99	7	19			1.000	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
8	PFDA	9.9041637	0.00796	99.0		9.894e3		5.23	8	18			1.135	16-Dec-17	18:12:21		ICV171216	PFC ICV 537 17L...	1.0	1.0000	C18_5	NO
9	N-MeFOSAA	9.2594902	0.000948	92.6		3.837e3		5.35	9	20			1.000	16-Dec-17	18:12:21		ICV171216	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
10	N-EtFOSAA	9.6159289	0.00948	96.2		2.947e3		5.47	10	20			1.023	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
11	PFUnA	9.7850000	0.00136	97.9		9.453e3		5.48	11	18			1.189	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
12	PFDoA	9.4962827	0.0423	95.0		1.935e3		5.70	12	18			1.236	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
13	PFTrDA	10.980795	0.00336	109.8		1.610e4		5.88	13	18			1.276	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
14	PFTeDA	9.5834394	0.00259	95.8		1.470e4		6.04	14	18			1.310	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	YES
15	13C2-PFHxA	9.4546663	0.000497	94.5		4.619e3	0.431	3.69	15	18			0.801	16-Dec-17	18:12:21		ICV171216	PFC ICV 537 17L...	1.0	1.0000	C18_5	NO
16	13C2-PFDA	9.2503596	0.00146	92.5		6.318e3	0.602	5.23	16	18			1.135	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	NO
17	d5-N-EtFOSAA	41.361504	0.00201	103.4		8.059e3	1.205	5.46	17	20			1.022	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	NO
18	13C2-PFOA	10.000000	0.00216	100.0		1.134e4	1.000	4.61	18	18			0.000	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	NO
19	13C4-PFOS	28.700000	0.0108	100.0		1.409e4	1.000	4.99	19	19			0.000	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	NO
20	d3-N-MeFOSAA	40.000000	0.0162	100.0		6.465e3	1.000	5.35	20	20			0.000	16-Dec-17	18:12:21		ICV171216...	PFC ICV 537 17L...	1.0	1.0000	C18_5...	NO

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Printed: Monday, December 18, 2017 10:53:25 Pacific Standard Time

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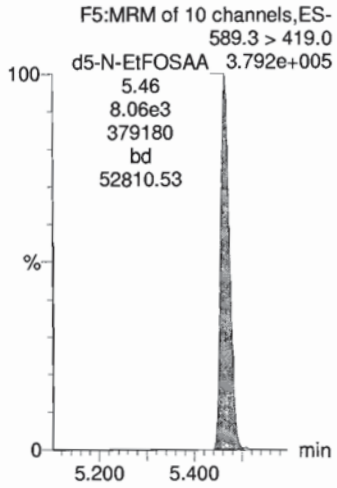
d5-N-EtFOSAA



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N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB154-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/08/2017 16:56	12/12/2017			20171218	08:15:00	20171219	16:58:00	1701928-04
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:11:00	1701928-05
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:11:00	1701928-05
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:11:00	1701928-05
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:11:00	1701928-05
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:23:00	1701928-06
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:23:00	1701928-06
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:23:00	1701928-06
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB155-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:45	12/12/2017			20171218	08:15:00	20171219	17:23:00	1701928-06
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:36:00	1701928-07
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:36:00	1701928-07
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:36:00	1701928-07
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:36:00	1701928-07
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:48:00	1701928-08
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:48:00	1701928-08
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:48:00	1701928-08
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB156-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 10:08	12/12/2017			20171218	08:15:00	20171219	17:48:00	1701928-08
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:00:00	1701928-09
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:00:00	1701928-09
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:00:00	1701928-09
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1RW157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:00:00	1701928-09
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:13:00	1701928-10
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:13:00	1701928-10
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:13:00	1701928-10
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-1FB157-1217	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	12/09/2017 09:14	12/12/2017			20171218	08:15:00	20171219	18:13:00	1701928-10
N6247016D9000	0008		CHERRY_POINT_MCAS	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	11:23:00	B7L0122-BLK1
N6247016D9000	0008		CHERRY_POINT_MCAS	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	11:23:00	B7L0122-BLK1
N6247016D9000	0008		CHERRY_POINT_MCAS	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	11:23:00	B7L0122-BLK1
N6247016D9000	0008		CHERRY_POINT_MCAS	Blank	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	11:23:00	B7L0122-BLK1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:33:00	B7L0122-BS1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:33:00	B7L0122-BS1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:33:00	B7L0122-BS1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:33:00	B7L0122-BS1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS Dup	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:45:00	B7L0122-BSD1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS Dup	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:45:00	B7L0122-BSD1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS Dup	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:45:00	B7L0122-BSD1
N6247016D9000	0008		CHERRY_POINT_MCAS	LCS Dup	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	12/18/2017 08:15	12/18/2017			20171218	08:15:00	20171219	10:45:00	B7L0122-BSD1

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	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
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.98	NG_L	U		PR	TRG									5.1	0.441	4.98	9.96	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.98	NG_L	U		PR	TRG									5.1	1.08	4.98	9.96	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.98	NG_L	U		PR	TRG									5.1	1.04	4.98	9.96	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		96.6	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.72	NG_L	U		PR	TRG									5.1	0.419	4.72	9.45	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.72	NG_L	U		PR	TRG									5.1	1.02	4.72	9.45	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.72	NG_L	U		PR	TRG									5.1	0.983	4.72	9.45	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		104	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.67	NG_L	U		PR	TRG									5.1	0.414	4.67	9.34	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.67	NG_L	U		PR	TRG									5.1	1.01	4.67	9.34	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.67	NG_L	U		PR	TRG									5.1	0.971	4.67	9.34	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		98.6	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.74	NG_L	U		PR	TRG									5.1	0.420	4.74	9.48	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.74	NG_L	U		PR	TRG									5.1	1.02	4.74	9.48	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.74	NG_L	U		PR	TRG									5.1	0.986	4.74	9.48	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		105	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.561	NG_L	J		PR	TRG									5.1	0.447	5.05	10.1	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		2.35	NG_L	J		PR	TRG									5.1	1.09	5.05	10.1	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.05	NG_L	U		PR	TRG									5.1	1.05	5.05	10.1	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		98.6	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.73	NG_L	U		PR	TRG									5.1	0.419	4.73	9.46	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.73	NG_L	U		PR	TRG									5.1	1.02	4.73	9.46	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.73	NG_L	U		PR	TRG									5.1	0.984	4.73	9.46	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		113	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.59	NG_L	U		PR	TRG									5.1	0.407	4.59	9.18	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.59	NG_L	U		PR	TRG									5.1	0.991	4.59	9.18	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.59	NG_L	U		PR	TRG									5.1	0.955	4.59	9.18	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		104	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.81	NG_L	U		PR	TRG									5.1	0.426	4.81	9.62	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.81	NG_L	U		PR	TRG									5.1	1.04	4.81	9.62	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.81	NG_L	U		PR	TRG									5.1	1.00	4.81	9.62	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		105	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.67	NG_L	U		PR	TRG									5.1	0.413	4.67	9.33	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.67	NG_L	U		PR	TRG									5.1	1.01	4.67	9.33	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.67	NG_L	U		PR	TRG									5.1	0.970	4.67	9.33	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		88.6	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.72	NG_L	U		PR	TRG									5.1	0.418	4.72	9.43	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.72	NG_L	U		PR	TRG									5.1	1.02	4.72	9.43	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.72	NG_L	U		PR	TRG									5.1	0.981	4.72	9.43	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		97.7	PCT_REC			PR			SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U		PR	TRG									5.1	0.443	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U		PR	TRG									5.1	1.08	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U		PR	TRG									5.1	1.04	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		102	PCT_REC			PR	SUR		SLSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		34.4	NG_L			PR	TRG		LSA	150	50					5.1	0.443	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		43.1	NG_L			PR	TRG		LSA	150	50					5.1	1.08	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		36.8	NG_L			PR	TRG		LSA	150	50					5.1	1.04	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		110	PCT_REC			PR	SUR		LSA	130	70					5.1				1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		34.1	NG_L			PR	TRG		LSA	150	50					5.1	0.443	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		42.4	NG_L			PR	TRG		LSA	150	50					5.1	1.08	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		32.6	NG_L			PR	TRG		LSA	150	50					5.1	1.04	5.00	10.0	1701928	S7L0063
N6247016D9000	0008		CHERRY_POINT_MCAS	1	-999			13C2-PFHxA	13C2-PFHxA		93.2	PCT_REC			PR	SUR		LSA	130	70					5.1				1701928	S7L0063

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
MCOLF ATLANTC, NORTH CAROLINA

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1701928
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: MCOLF Atlantic, North Carolina
Date: January 13, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CH-AT-1RW153-1217	1701928-01	Water
2	CH-AT-1FB153-1217	1701928-02	Water
3	CH-AT-1RW154-1217	1701928-03	Water
4	CH-AT-1FB154-1217	1701928-04	Water
5	CH-AT-1RW155-1217	1701928-05	Water
6	CH-AT-1FB155-1217	1701928-06	Water
7	CH-AT-1RW156-1217	1701928-07	Water
8	CH-AT-1FB156-1217	1701928-08	Water
9	CH-AT-1RW157-1217	1701928-09	Water
10	CH-AT-1FB157-1217	1701928-10	Water

A full data validation was performed on the analytical data for five water samples and five aqueous field blank samples collected on December 8-9, 2017 by CH2M HILL at the MCOLF Atlantic site in Atlantic, North Carolina. 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

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 5.0 (July 2013) 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 difference (%D) 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
CH-AT-1FB153-1217	None - ND	-	-	-
CH-AT-1FB154-1217	None - ND	-	-	-
CH-AT-1FB155-1217	None - ND	-	-	-
CH-AT-1FB156-1217	None - ND	-	-	-
CH-AT-1FB157-1217	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples were not analyzed.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate 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: 1/15/18

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: CH-AT-1RW153-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 08-Dec-17 16:29

Laboratory Data

Lab Sample: 1701928-01
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.441	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOA	ND	1.08	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1
PFOS	ND	1.04	4.98	9.96		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.6	70 - 130		B7L0122	18-Dec-17	0.251 L	19-Dec-17 16:21	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

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Vista Analytical Laboratory 2

Sample ID: CH-AT-1FB153-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-02	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	08-Dec-17 16:30	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.419	4.72	9.45		B7L0122	18-Dec-17	0.265 L	19-Dec-17 16:33	1
PFOA	ND	1.02	4.72	9.45		B7L0122	18-Dec-17	0.265 L	19-Dec-17 16:33	1
PFOS	ND	0.983	4.72	9.45		B7L0122	18-Dec-17	0.265 L	19-Dec-17 16:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130		B7L0122	18-Dec-17	0.265 L	19-Dec-17 16:33	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

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Vista Analytical Laboratory 3

Sample ID: CH-AT-1RW154-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-03	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	08-Dec-17 16:55	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.414	4.67	9.34		B7L0122	18-Dec-17	0.268 L	19-Dec-17 16:46	1
PFOA	ND	1.01	4.67	9.34		B7L0122	18-Dec-17	0.268 L	19-Dec-17 16:46	1
PFOS	ND	0.971	4.67	9.34		B7L0122	18-Dec-17	0.268 L	19-Dec-17 16:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.6	70 - 130		B7L0122	18-Dec-17	0.268 L	19-Dec-17 16:46	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers
Only the linear isomer is reported for all other analytes

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Vista Analytical Laboratory 4

Sample ID: CH-AT-1FB154-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-04	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	08-Dec-17 16:56	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.420	4.74	9.48		B7L0122	18-Dec-17	0.264 L	19-Dec-17 16:58	1
PFOA	ND	1.02	4.74	9.48		B7L0122	18-Dec-17	0.264 L	19-Dec-17 16:58	1
PFOS	ND	0.986	4.74	9.48		B7L0122	18-Dec-17	0.264 L	19-Dec-17 16:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	105	70 - 130		B7L0122	18-Dec-17	0.264 L	19-Dec-17 16:58	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

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Vista 5 Analytical Laboratory

Sample ID: CH-AT-1RW155-1217 — **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-05	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 09:45	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	0.561	0.447	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOA	2.35	1.09	5.05	10.1	J	B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1
PFOS	ND	1.05	5.05	10.1		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.6	70 - 130		B7L0122	18-Dec-17	0.248 L	19-Dec-17 17:11	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Dec 1/13/18

Vista Analytical Laboratory

Sample ID: CH-AT-1FB155-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-06	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 09:45	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.419	4.73	9.46		B7L0122	18-Dec-17	0.264 L	19-Dec-17 17:23	1
PFOA	ND	1.02	4.73	9.46		B7L0122	18-Dec-17	0.264 L	19-Dec-17 17:23	1
PFOS	ND	0.984	4.73	9.46		B7L0122	18-Dec-17	0.264 L	19-Dec-17 17:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	113	70 - 130		B7L0122	18-Dec-17	0.264 L	19-Dec-17 17:23	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

1/3/18

Vista 7 Analytical Laboratory

Sample ID: CH-AT-1RW156-1217

EPA Method 537

Client Data

Name: CH2M Hill
Project: CTO-08/MCOLF ATLANTIC PFAS INV.
Matrix: Drinking Water
Date Collected: 09-Dec-17 10:08

Laboratory Data

Lab Sample: 1701928-07
Date Received: 12-Dec-17 10:07
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.407	4.59	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:36	1
PFOA	ND	0.991	4.59	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:36	1
PFOS	ND	0.955	4.59	9.18		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130		B7L0122	18-Dec-17	0.272 L	19-Dec-17 17:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

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Vista Analytical Laboratory

Sample ID: CH-AT-1FB156-1217

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-08	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 10:08	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.426	4.81	9.62		B7L0122	18-Dec-17	0.260 L	19-Dec-17 17:48	1
PFOA	ND	1.04	4.81	9.62		B7L0122	18-Dec-17	0.260 L	19-Dec-17 17:48	1
PFOS	ND	1.00	4.81	9.62		B7L0122	18-Dec-17	0.260 L	19-Dec-17 17:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	105	70 - 130		B7L0122	18-Dec-17	0.260 L	19-Dec-17 17:48	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

1/13/18

Vista Analytical Laboratory 9

Sample ID: CH-AT-1RW157-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-09	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 09:14	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.413	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOA	ND	1.01	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1
PFOS	ND	0.970	4.67	9.33		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.6	70 - 130		B7L0122	18-Dec-17	0.268 L	19-Dec-17 18:00	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

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Vista Analytical Laboratory 10

Sample ID: CH-AT-1FB157-1217 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1701928-10	Column:	BEH C18
Project:	CTO-08/MCOLF ATLANTIC PFAS INV.	Date Collected:	09-Dec-17 09:14	Date Received:	12-Dec-17 10:07		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.418	4.72	9.43		B7L0122	18-Dec-17	0.265 L	19-Dec-17 18:13	1
PFOA	ND	1.02	4.72	9.43		B7L0122	18-Dec-17	0.265 L	19-Dec-17 18:13	1
PFOS	ND	0.981	4.72	9.43		B7L0122	18-Dec-17	0.265 L	19-Dec-17 18:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	97.7	70 - 130		B7L0122	18-Dec-17	0.265 L	19-Dec-17 18:13	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Rev 1.3.8

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Legend

- Proposed Sample Location
- Public Water Supply Well
- Direction of Groundwater Flow
- MCOLF Atlantic - 1-mile zone
- Base Boundary
- Site Boundary (suspected source)
- Parcels

N

0 0.2 0.4 Miles

1 inch = 0.4 mile

Imagery: Esri, 2016

Figure 3
Proposed Sampling Locations
Marine Corps Outlying Landing Field Atlantic
Atlantic Beach, North Carolina