NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1800085

Marine Corps Base Camp Lejeune
North Carolina

July 2019

January 26, 2018

Vista Work Order No. 1800085

Ms. Jaclyn D'Onofrio
CH2M Hill
2411 Dulles Corner Park, Suite 500
Herndon, VA 20171

Dear Ms. D'Onofrio,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 12, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'PFAS PSW Drinking Water Sampling'.

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. 1800085
Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

EPA Method 537

Holding Times

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

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery of EtFOSAA was >130% in a Continuing Calibration Verification; this analyte was not detected in the samples.

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

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

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "IR54-PSW-VL101-17D". The analyte recoveries and RPDs were within the method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800085-01	IR54-PSW-VL101-17D	MS/MSD11-Jan-18 14:30	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800085-02	IR54-PSW-VL101D-17D	11-Jan-18 14:35	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800085-03	IR54-PSW-FB-17D	11-Jan-18 14:40	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Matrix: Aqueous

Laboratory Data

Lab Sample: B8A0089-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		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHxA	1.01	0.663	5.00	10.0	J	B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHpA	ND	0.533	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHxS	ND	0.415	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFOA	ND	1.08	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFNA	ND	1.44	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFOS	ND	1.04	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFDA	ND	1.28	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
MeFOSAA	ND	3.04	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
EtFOSAA	ND	1.93	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFUnA	ND	0.255	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFDoA	ND	0.952	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFTrDA	ND	0.943	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFTeDA	ND	0.777	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.6	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
13C2-PFDA	SURR	110	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
d5-EtFOSAA	SURR	95.7	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	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: LFB

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Matrix: Aqueous

Laboratory Data

Lab Sample: B8A0089-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	38.2	35.4	108	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHxA	34.6	40.0	86.6	70-130	B	B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHpA	36.0	40.0	90.1	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHxS	40.7	36.4	112	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFOA	35.9	40.0	89.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFNA	36.4	40.0	90.9	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFOS	38.6	37.0	104	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFDA	32.6	40.0	81.5	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
MeFOSAA	37.3	40.0	93.2	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
EtFOSAA	40.0	40.0	100	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFUnA	35.6	40.0	89.1	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFDoA	35.9	40.0	89.9	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFTrDA	34.3	40.0	85.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFTeDA	32.7	40.0	81.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.4	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
13C2-PFDA	SURR	86.0	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
d5-EtFOSAA	SURR	91.1	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1

Sample ID: IR54-PSW-VL101-17D

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Location: Parent
Matrix: Aqueous
Date Collected: 11-Jan-18 14:30

Laboratory Data

Lab Sample: 1800085-01
Date Received: 12-Jan-18 12:52
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.451	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxA	1.06	0.676	5.10	10.2	J, B	B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHpA	ND	0.543	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxS	ND	0.423	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOA	ND	1.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFNA	ND	1.47	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOS	ND	1.06	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDA	ND	1.30	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
MeFOSAA	ND	3.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
EtFOSAA	ND	1.97	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFUnA	ND	0.260	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDoA	ND	0.970	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTrDA	ND	0.961	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTeDA	ND	0.792	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.7	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
13C2-PFDA	SURR	84.3	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
d5-EtFOSAA	SURR	105	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	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: IR54-PSW-VL101-17D

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8A0089-MS1/B8A0089-MSD1	Source Lab Sample:	1800085-01
Project:	PFAS PSW Drinking Water Sampling	QC Batch:	B8A0089	Date Extracted:	16-Jan-18
Matrix:	Aqueous	Samp Size:	0.244/0.242 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	ND	29.6	36.2	81.8		35.5	36.6	97.0	17.0		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHxA	1.06	33.4	40.9	79.0	B	37.4	41.3	87.9	10.7	B	70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHpA	ND	36.6	40.9	89.4		39.3	41.3	95.2	6.28		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHxS	ND	36.9	37.2	99.2		39.9	37.6	106	6.63		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFOA	ND	41.0	40.9	100		44.1	41.3	107	6.76		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFNA	ND	38.8	40.9	94.9		43.4	41.3	105	10.1		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFOS	ND	35.2	37.8	93.2		37.3	38.2	97.7	4.71		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFDA	ND	34.7	40.9	83.9		38.2	41.3	91.5	8.67		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
MeFOSAA	ND	37.4	40.9	91.3		43.5	41.3	105	14.0		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
EtFOSAA	ND	48.0	40.9	117		41.0	41.3	99.3	16.4		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFUnA	ND	38.7	40.9	94.6		35.0	41.3	84.8	10.9		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFDoA	ND	37.1	40.9	90.4		38.6	41.3	93.3	3.16		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFTrDA	ND	32.9	40.9	80.6		37.1	41.3	89.7	10.7		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFTeDA	ND	35.7	40.9	87.3		35.0	41.3	84.7	3.02		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFHxA	SURR	87.1		89.8		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1
13C2-PFDA	SURR	88.7		91.8		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1
d5-EtFOSAA	SURR	107		104		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1

Sample ID: IR54-PSW-VL101D-17D

EPA Method 537

Client Data

Name: C2 HM 2 ill
Project: PFAS PSW Drinking Water Sampling
Location: Duplicate

Matrix: Aqueous
Date Collected: 11-Jan-18 14:35

Laboratory Data

Lab Sample: 1800085-0H
Date Received: 1H-Jan-18 1H:5H

Column: BE2 C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.448	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 xA	1.31	0.970	5.09	10.1	J, B	B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 pA	ND	0.536	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 xS	ND	0.4HD	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFOA	ND	1.06	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFNA	ND	1.49	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFOS	ND	1.05	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFDA	ND	1.H6	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
MeFOSAA	ND	3.07	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
EtFOSAA	ND	1.65	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFUnA	ND	0.H58	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFDoA	ND	0.693	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFTrDA	ND	0.654	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFTeDA	ND	0.789	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
Combined PFOA/PFOS	ND					B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13CH-PF2 xA	SURR	63.7	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
13CH-PFDA	SURR	77.9	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
d5-EtFOSAA	SURR	69.4	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	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, PF2 xS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: IR54-PSW-FB-17D

EPA Method 537

Client Data

Name: C2 uM 2 ill
Project: PFAS PSW Drinking Water Sampling
Location: Field Elank

Matrix: AsBeoBJ
Date Collected: 11-4an-18 13:30

Laboratory Data

Lab Sample: 1800085-0H
Date Received: 1u-4an-18 1u:5u

ColBmn: Eq2 C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.331	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 xA	1.u6	0.660	3.98	9.96	47E	E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 pA	ND	0.5Hl	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 xS	ND	0.31H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF, A	ND	1.08	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFNA	ND	1.3H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF, S	ND	1.03	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFDA	ND	1.uO	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
MeF, SAA	ND	H0H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
qtF, SAA	ND	1.9u	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFUnA	ND	0.u53	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFDoA	ND	0.938	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFTrDA	ND	0.9H9	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFTeDA	ND	0.CC8	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
Combined PF, A/PF, S	ND					E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HCu-PF2 xA	SURR	103	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
1HCu-PFDA	SURR	86.3	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
d5-qtF, SAA	SURR	8O6	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1

DL - Detection Limit

L, D - Limit of Detection
L, Q - Limit of sBantitation

LCL-UCL- Lower control limit - Bpper control limit
ReJBltJ reported to the DL.

When reported7PF2 xS7PF, A and PF, S inclBde both linear and branched iJomerJ.
, nly the linear iJomer iJ reported for all other analyteJ.

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
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800085 Temp: 0.3 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: PFAS PSW Drinking water sampling PO#: _____ Sampler: Matt McClanahan (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Amber Baseman	CHZM	Matt		1-11-18	1300	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Matt	1-11-18	1500	Marissa Sparks	01/12/18	1300
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: Fed Ex Expess

Tracking No.: 789300497624

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
IR54-PSW-VL101-170	1-11-18	1430	Parent	2	P	AQ					see sow				
IR54-PSW-VL101D-170	1-11-18	1435	Duplicate	2	P	AQ					↓				
IR54-PSW-FB-170	1-11-18	1440	Field Blank	2	P	AQ									
IR54-PSW-VL101-170-MS	1-11-18	1430	MS	2	P	AQ									
IR54-PSW-VL101-170-SD	1-11-18	1430	MSD	2	P	AQ									

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Jaclyn D'Onofrio
Company: CHZM
Address: 2411 Dulles Corner Park
City: Herndon State: VA Zip: 20171
Phone: 703-376-5132 Fax: _____
Email: jackie.Donofrio@chzm.com

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

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

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

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1800085 **TAT** 7

Samples Arrival:	**Date/Time** 01/12/18 1252	**Initials:** WWS	**Location:** WR-2 **Shelf/Rack:** U/3
Logged In:	**Date/Time** 01/14/18 0931	**Initials:** BAB	**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: 0.4	(uncorrected)	**Time:** 1259	**Thermometer ID:** IR-4
Temp °C: 0.3	(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 # 7893 0049 7624	✓		
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:

January 26, 2018

Vista Work Order No. 1800085

Ms. Jaclyn D'Onofrio
CH2M Hill
2411 Dulles Corner Park, Suite 500
Herndon, VA 20171

Dear Ms. D'Onofrio,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 12, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'PFAS PSW Drinking Water Sampling'.

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. 1800085
Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

EPA Method 537

Holding Times

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

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery of EtFOSAA was >130% in a Continuing Calibration Verification; this analyte was not detected in the samples.

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

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

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "IR54-PSW-VL101-17D". The analyte recoveries and RPDs were within the method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800085-01	IR54-PSW-VL101-17D	MS/MSD11-Jan-18 14:30	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800085-02	IR54-PSW-VL101D-17D	11-Jan-18 14:35	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800085-03	IR54-PSW-FB-17D	11-Jan-18 14:40	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Matrix: Aqueous

Laboratory Data

Lab Sample: B8A0089-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		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHxA	1.01	0.663	5.00	10.0	J	B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHpA	ND	0.533	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFHxS	ND	0.415	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFOA	ND	1.08	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFNA	ND	1.44	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFOS	ND	1.04	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFDA	ND	1.28	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
MeFOSAA	ND	3.04	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
EtFOSAA	ND	1.93	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFUnA	ND	0.255	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFDoA	ND	0.952	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFTrDA	ND	0.943	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
PFTeDA	ND	0.777	5.00	10.0		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.6	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
13C2-PFDA	SURR	110	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	1
d5-EtFOSAA	SURR	95.7	70 - 130		B8A0089	16-Jan-18	0.250 L	18-Jan-18 18:04	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: LFB **EPA Method 537**

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Matrix: Aqueous

Laboratory Data

Lab Sample: B8A0089-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	38.2	35.4	108	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHxA	34.6	40.0	86.6	70-130	B	B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHpA	36.0	40.0	90.1	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFHxS	40.7	36.4	112	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFOA	35.9	40.0	89.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFNA	36.4	40.0	90.9	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFOS	38.6	37.0	104	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFDA	32.6	40.0	81.5	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
MeFOSAA	37.3	40.0	93.2	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
EtFOSAA	40.0	40.0	100	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFUnA	35.6	40.0	89.1	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFDoA	35.9	40.0	89.9	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFTrDA	34.3	40.0	85.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
PFTeDA	32.7	40.0	81.8	70-130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.4	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
13C2-PFDA	SURR	86.0	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1
d5-EtFOSAA	SURR	91.1	70- 130		B8A0089	16-Jan-18	0.250 L	25-Jan-18 18:52	1

Sample ID: IR54-PSW-VL101-17D

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Location: Parent
Matrix: Aqueous
Date Collected: 11-Jan-18 14:30

Laboratory Data

Lab Sample: 1800085-01
Date Received: 12-Jan-18 12:52
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.451	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxA	1.06	0.676	5.10	10.2	J, B	B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHpA	ND	0.543	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxS	ND	0.423	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOA	ND	1.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFNA	ND	1.47	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOS	ND	1.06	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDA	ND	1.30	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
MeFOSAA	ND	3.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
EtFOSAA	ND	1.97	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFUnA	ND	0.260	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDoA	ND	0.970	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTrDA	ND	0.961	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTeDA	ND	0.792	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.7	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
13C2-PFDA	SURR	84.3	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
d5-EtFOSAA	SURR	105	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	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: IR54-PSW-VL101-17D

EPA Method 537

Name:	CH2M Hill	Lab Sample:	B8A0089-MS1/B8A0089-MSD1	Source Lab Sample:	1800085-01
Project:	PFAS PSW Drinking Water Sampling	QC Batch:	B8A0089	Date Extracted:	16-Jan-18
Matrix:	Aqueous	Samp Size:	0.244/0.242 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	ND	29.6	36.2	81.8		35.5	36.6	97.0	17.0		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHxA	1.06	33.4	40.9	79.0	B	37.4	41.3	87.9	10.7	B	70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHpA	ND	36.6	40.9	89.4		39.3	41.3	95.2	6.28		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFHxS	ND	36.9	37.2	99.2		39.9	37.6	106	6.63		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFOA	ND	41.0	40.9	100		44.1	41.3	107	6.76		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFNA	ND	38.8	40.9	94.9		43.4	41.3	105	10.1		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFOS	ND	35.2	37.8	93.2		37.3	38.2	97.7	4.71		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFDA	ND	34.7	40.9	83.9		38.2	41.3	91.5	8.67		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
MeFOSAA	ND	37.4	40.9	91.3		43.5	41.3	105	14.0		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
EtFOSAA	ND	48.0	40.9	117		41.0	41.3	99.3	16.4		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFUnA	ND	38.7	40.9	94.6		35.0	41.3	84.8	10.9		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFDoA	ND	37.1	40.9	90.4		38.6	41.3	93.3	3.16		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFTrDA	ND	32.9	40.9	80.6		37.1	41.3	89.7	10.7		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1
PFTeDA	ND	35.7	40.9	87.3		35.0	41.3	84.7	3.02		70-130	30	18-Jan-18 19:44	1	18-Jan-18 19:56	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFHxA	SURR	87.1		89.8		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1
13C2-PFDA	SURR	88.7		91.8		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1
d5-EtFOSAA	SURR	107		104		70-130	18-Jan-18 19:44	1	18-Jan-18 19:56	1

Sample ID: IR54-PSW-VL101D-17D

EPA Method 537

Client Data

Name: C2 HM 2 ill
Project: PFAS PSW Drinking Water Sampling
Location: Duplicate

Matrix: Aqueous
Date Collected: 11-Jan-18 14:35

Laboratory Data

Lab Sample: 1800085-0H
Date Received: 1H-Jan-18 1H:5H

Column: BE2 C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.448	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 xA	1.31	0.970	5.09	10.1	J, B	B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 pA	ND	0.536	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PF2 xS	ND	0.4HD	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFOA	ND	1.06	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFNA	ND	1.49	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFOS	ND	1.05	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFDA	ND	1.H6	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
MeFOSAA	ND	3.07	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
EtFOSAA	ND	1.65	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFUnA	ND	0.H58	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFDoA	ND	0.693	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFTrDA	ND	0.654	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
PFTeDA	ND	0.789	5.09	10.1		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
Combined PFOA/PFOS	ND					B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13CH-PF2 xA	SURR	63.7	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
13CH-PFDA	SURR	77.9	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	1
d5-EtFOSAA	SURR	69.4	70 - 130		B8A0086	19-Jan-18	0.H47 L	H5-Jan-18 16:19	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, PF2 xS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: IR54-PSW-FB-17D

EPA Method 537

Client Data

Name: C2 uM 2 ill
Project: PFAS PSW Drinking Water Sampling
Location: Field Elank

Matrix: AsBeoBJ
Date Collected: 11-4an-18 13:30

Laboratory Data

Lab Sample: 1800085-0H
Date Received: 1u-4an-18 1u:5u

ColBmn: Eq2 C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFES	ND	0.331	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 xA	1.u6	0.660	3.98	9.96	47E	E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 pA	ND	0.5Hl	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF2 xS	ND	0.31H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF, A	ND	1.08	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFNA	ND	1.3H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PF, S	ND	1.03	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFDA	ND	1.uO	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
MeF, SAA	ND	H0H	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
qtF, SAA	ND	1.9u	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFUnA	ND	0.u53	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFDoA	ND	0.938	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFTrDA	ND	0.9H9	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
PFTeDA	ND	0.CC8	3.98	9.96		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
Combined PF, A/PF, S	ND					E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
1HCu-PF2 xA	SURR	103	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
1HCu-PFDA	SURR	86.3	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1
d5-qtF, SAA	SURR	8O6	CO - 1HO		E8A0089	16-4an-18	0.u51 L	u5-4an-18 19:u9	1

DL - Detection Limit

L, D - Limit of Detection
L, Q - Limit of sBantitation

LCL-UCL- Lower control limit - Bpper control limit
ReJBltJ reported to the DL.

When reported7PF2 xS7PF, A and PF, S inclBde both linear and branched iJomerJ.
, nly the linear iJomer iJ reported for all other analyteJ.

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
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800085 Temp: 0.3 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: PFAS PSW Drinking water sampling PO#: _____ Sampler: Matt McClanahan (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Amber Baseman	CHZM	Matt		1-11-18	1300	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Matt	1-11-18	1500	Marissa Sparks	01/12/18	1300
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

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

ATTN: Martha Maier

Method of Shipment: Fed Ex Expess

Tracking No.: 789300497624

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/ PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/ PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
IR54-PSW-VL101-170	1-11-18	1430	Parent	2	P	AQ					see sow				
IR54-PSW-VL101D-170	1-11-18	1435	Duplicate	2	P	AQ					↓				
IR54-PSW-FB-170	1-11-18	1440	Field Blank	2	P	AQ									
IR54-PSW-VL101-170-MS	1-11-18	1430	MS	2	P	AQ									
IR54-PSW-VL101-170-MSD	1-11-18	1430	MSD	2	P	AQ									

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Jaclyn D'Onofrio
Company: CHZM
Address: 2411 Dulles Corner Park
City: Herndon State: VA Zip: 20171
Phone: 703-376-5132 Fax: _____
Email: jackie.Donofrio@chzm.com

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

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

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

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1800085 **TAT** 7

Samples Arrival:	**Date/Time** 01/12/18 1252	**Initials:** WWS	**Location:** WR-2 **Shelf/Rack:** U/3
Logged In:	**Date/Time** 01/14/18 0931	**Initials:** BAB	**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: 0.4	(uncorrected)	**Time:** 1259	**Thermometer ID:** IR-4
Temp °C: 0.3	(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 # 7893 0049 7624	✓		
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: 1800085

Prep Expiration: 2018-Jan-25
Client: CH2M Hill

Workorder Due: 19-Jan-18 00:00
TAT: 7

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

Prep Batch: B8A0089

Prep Data Entered: 1·18·18 ZR
Date and Initials

Version: 537 (14) + PFOA&PFOS (15 Analytes)
DoD: DoD QSM 5.1

Initial Sequence: S8A0063

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1800085-01	"ABC"	☑	☑	IR54-PSW-VL101-17D	**MS/MSD**	WR-2 E-2	HDPE Bottle, 250 mL
1800085-02	"A"	☑	☑	IR54-PSW-VL101D-17D		WR-2 E-2	HDPE Bottle, 250 mL
1800085-03	↓	☑	☑	IR54-PSW-FB-17D		WR-2 E-2	HDPE Bottle, 250 mL

WO Comments: **MS/MSD per batch.**
Combined PFOA/PFOS-run curve.

Pre-Prep Check Out: HN 1/16/18
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: HN 1/16/18
Spike Reconciled Initals/Date: KC 1/16/18
VialBoxID: Hugo Dino Vet

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8A0089

Chemist: KC

Prep Date/Time: 16-Jan-18 13:54

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-9

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8A0089-BLK1 (A)	NA	NA	(0.250) ✓	KC HN 1/16/18	HC 1.16.18	HC HN 1.17.18
☐	B8A0089-BS1	↓	↓	↓ ✓	↓	↓	↓
☐	B8A0089-MS1 1800085-01	270.97	26.48	0.24499 ✓			
☐	B8A0089-MSD1 1800085-01	268.79	26.92	0.24187 ✓			
☐	1800085-01	273.25	27.94	0.24531			
☐	1800085-02	274.99	27.77	0.24722 ✓			
☐	1800085-03	278.70	27.65	0.25105 ✓			

SS/IS: 17L1416, 20µL (V2)

NS: 17L2901, 10µL (V3)

IS/RS: 17L1417, 20µL (V2)

SPE Chem: Strata X 33µm 500mg/6mL

Lot#: S17-002481

Ele SOLV: MeOH

Lot#: JT189

Final Volume(s): 1 mL

Notes: (A) Added 1.25 g Trizma HN 1/16/18

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B8A0089

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1800085-01	0.24531 ✓	NA	NA	1000	16-Jan-18 13:54	KC			Aqueous	537 PFAS DW DoD Unmod
1800085-02	0.24722 ✓			1000	16-Jan-18 13:54	KC			Aqueous	537 PFAS DW DoD Unmod
1800085-03	0.25105 ✓			1000	16-Jan-18 13:54	KC			Aqueous	537 PFAS DW DoD Unmod
B8A0089-BLK1	0.25 ✓			1000	16-Jan-18 13:54	KC				QC
B8A0089-BS1	0.25 ✓			1000	16-Jan-18 13:54	KC	17L2901 ✓	10 ✓		QC
B8A0089-MS1	0.24449 ✓			1000	16-Jan-18 13:54	KC	17L2901 ✓	10 ✓		QC
B8A0089-MSD1	0.24187 ✓			1000	16-Jan-18 13:54	KC	17L2901 ✓	10 ✓		QC

FR 1.18.18

SAMPLE DATA –EPA METHOD 537

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_13.qld

Last Altered: Friday, January 26, 2018 13:27:26 Pacific Standard Time
Printed: Friday, January 26, 2018 13:28:39 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_13, Date: 18-Jan-2018, Time: 18:04:56, ID: B8A0089-BLK1 LRB 0.25, Description: LRB

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.05e4	0.2500		3.02				
2	2	PFHxA	313.2 > 268.9	5.42e1	8.61e3	0.2500		3.36	3.37	0.0630	1.009	
3	3	PFHpA	363 > 318.9	3.57e0	8.61e3	0.2500		3.88	3.89	0.00414	0.019	
4	4	PFHxS	398.9 > 79.6	1.12e1	1.05e4	0.2500		4.02	4.02	0.0306	0.132	
5	5	PFOA	413 > 368.7	4.98e1	8.61e3	0.2500		4.31	4.31	0.0578	0.296	
6	6	PFNA	463 > 418.8	4.61e0	8.61e3	0.2500		4.66	4.66	0.00536	0.026	
7	7	PFOS	499 >79.9	1.78e0	1.05e4	0.2500		4.72	4.72	0.00485	0.017	
8	8	PFDA	513 > 468.8	3.78e1	8.61e3	0.2500		4.98	4.95	0.0439	0.231	
9	9	N-MeFOSAA	570.1 > 419.0		6.27e3	0.2500		5.02				
10	10	N-EtFOSAA	584.2 >419.0		6.27e3	0.2500		5.20				
11	11	PFDoA	612.9 > 318.8		8.61e3	0.2500		5.35				
12	12	PFUnA	563 > 518.9		8.61e3	0.2500		5.15				
13	13	PFTrDA	662.9 > 618.9		8.61e3	0.2500		5.67				
14	14	PFTeDA	712.9 > 668.8		8.61e3	0.2500		5.84				
15	15	13C2-PFHxA	315 > 269.8	4.17e3	8.61e3	0.2500	0.517	3.46	3.37	4.84	37.424	93.6
16	16	13C2-PFDA	515.1 > 469.9	5.14e3	8.61e3	0.2500	0.543	4.92	4.96	5.98	44.061	110.2
17	17	d5-N-EtFOSAA	589.3 > 419.0	6.49e3	6.27e3	0.2500	1.081	5.08	5.21	41.4	153.129	95.7
18	18	13C2-PFOA	414.9 > 369.7	8.61e3	8.61e3	0.2500	1.000	4.31	4.31	10.0	40.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.05e4	1.05e4	0.2500	1.000	4.81	4.72	28.7	114.800	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.27e3	6.27e3	0.2500	1.000	5.16	5.08	40.0	160.000	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	5.16e1		0.2500	0.945	0.00		0.0627	0.313	

GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

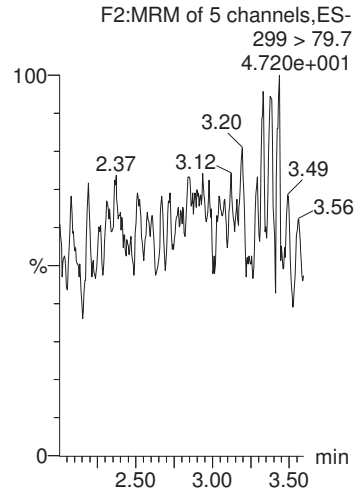
Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_13.qld

Last Altered: Friday, January 26, 2018 13:27:26 Pacific Standard Time
Printed: Friday, January 26, 2018 13:28:39 Pacific Standard Time

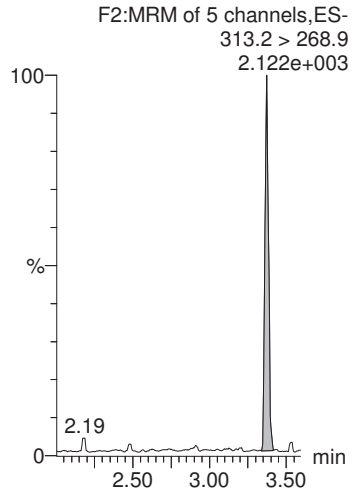
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_13, Date: 18-Jan-2018, Time: 18:04:56, ID: B8A0089-BLK1 LRB 0.25, Description: LRB

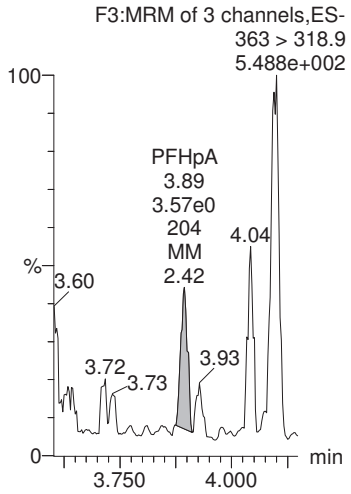
PFBS



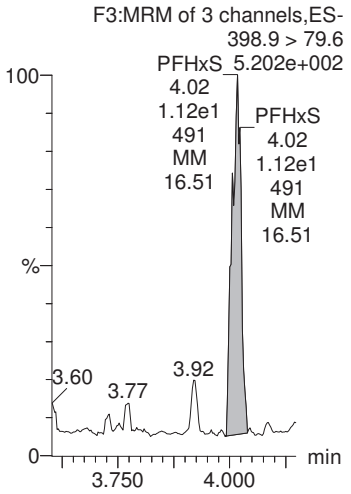
PFHxA



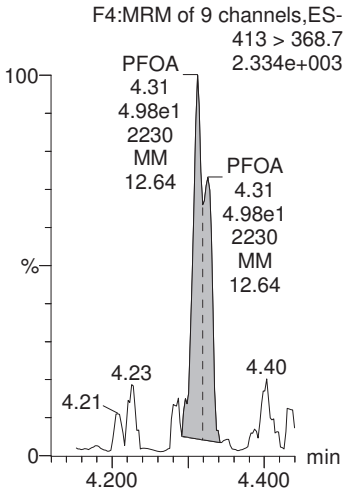
PFHpA



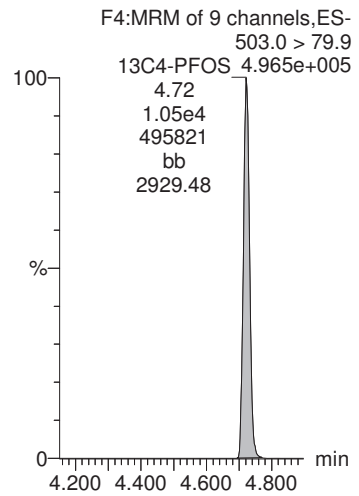
PFHxS



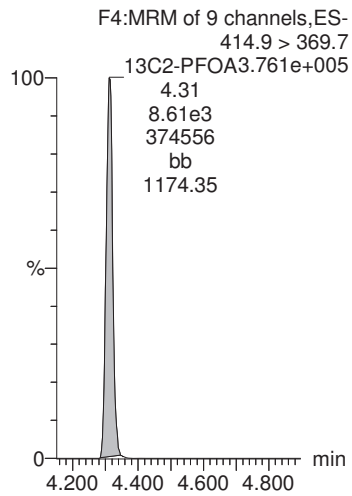
PFOA



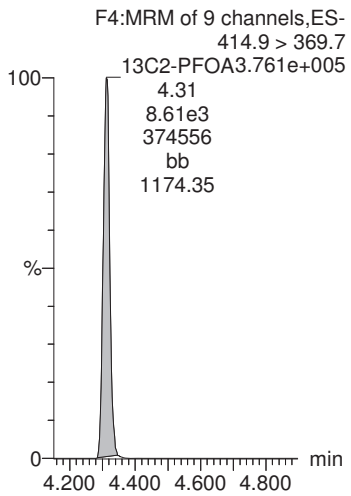
13C4-PFOS



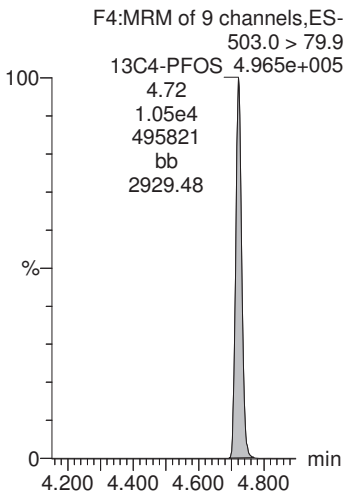
13C2-PFOA



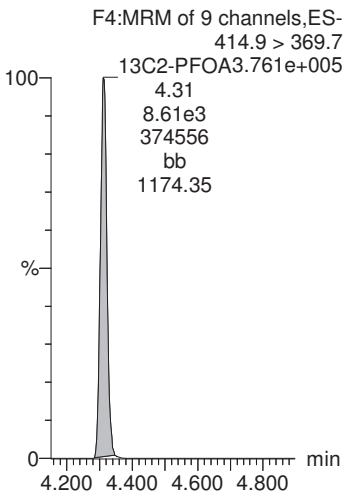
13C2-PFOA



13C4-PFOS



13C2-PFOA



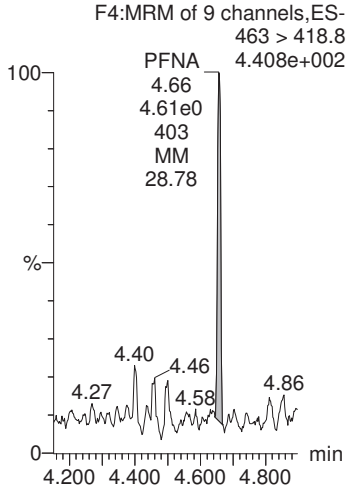
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_13.qld

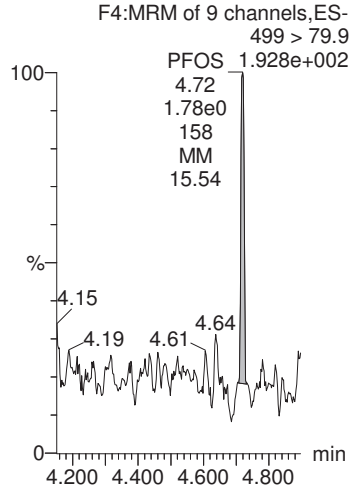
Last Altered: Friday, January 26, 2018 13:27:26 Pacific Standard Time
Printed: Friday, January 26, 2018 13:28:39 Pacific Standard Time

Name: 180118G2_13, Date: 18-Jan-2018, Time: 18:04:56, ID: B8A0089-BLK1 LRB 0.25, Description: LRB

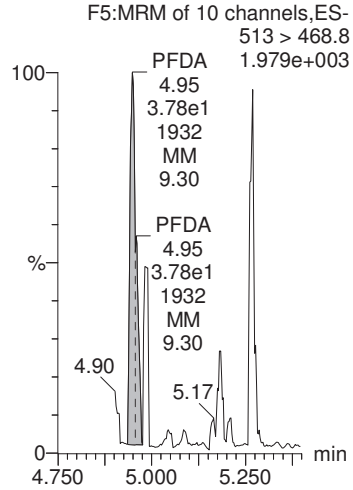
PFNA



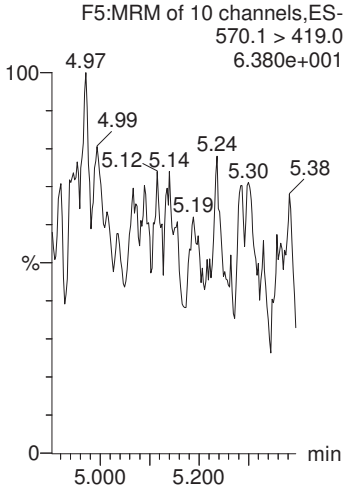
PFOS



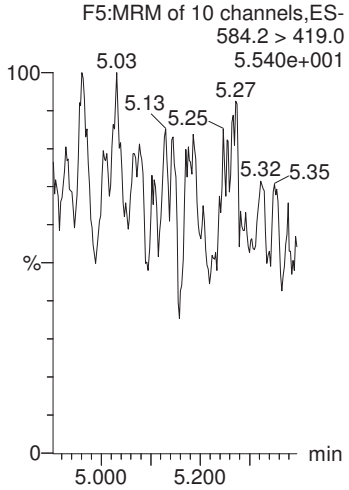
PFDA



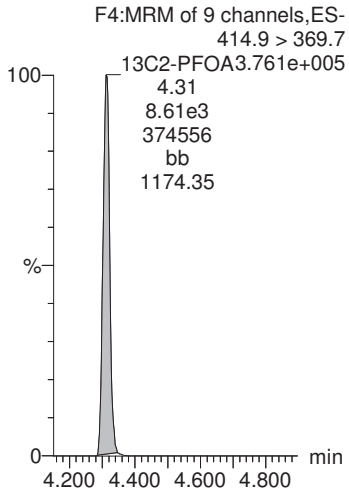
N-MeFOSAA



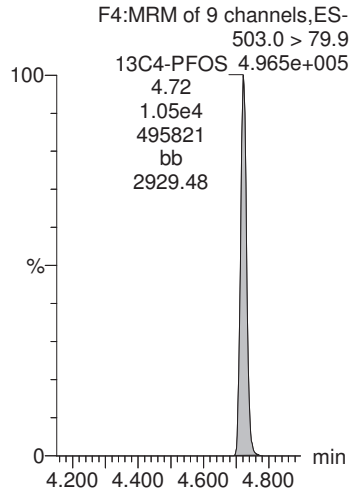
N-EtFOSAA



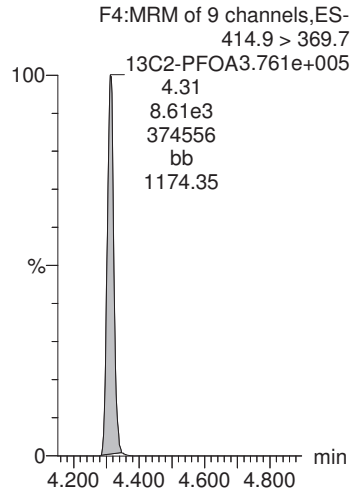
13C2-PFOA



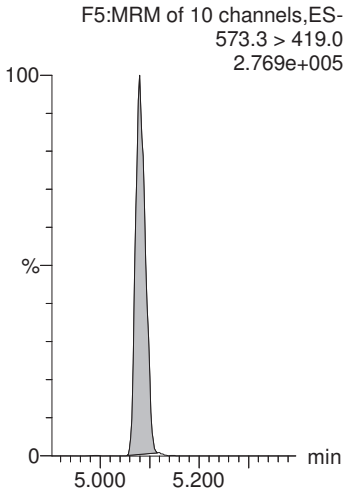
13C4-PFOS



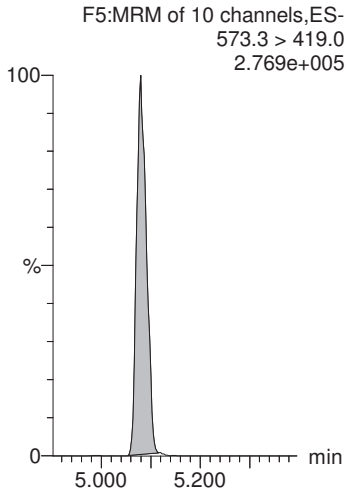
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

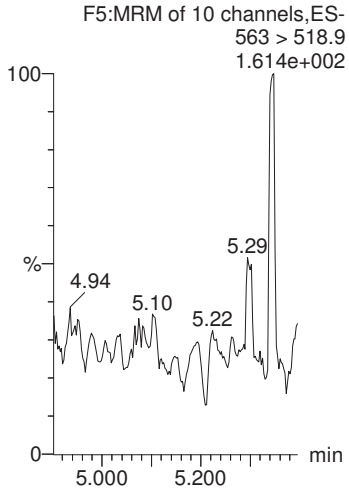
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_13.qld

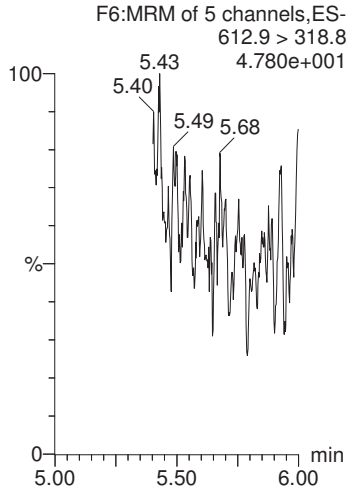
Last Altered: Friday, January 26, 2018 13:27:26 Pacific Standard Time
Printed: Friday, January 26, 2018 13:28:39 Pacific Standard Time

Name: 180118G2_13, Date: 18-Jan-2018, Time: 18:04:56, ID: B8A0089-BLK1 LRB 0.25, Description: LRB

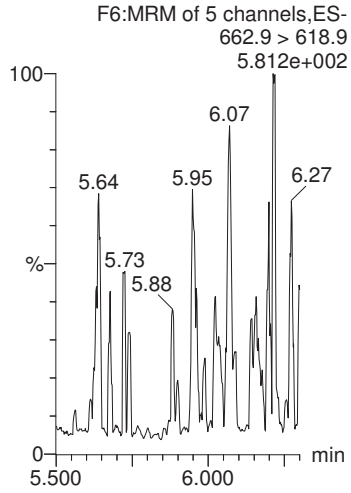
PFUnA



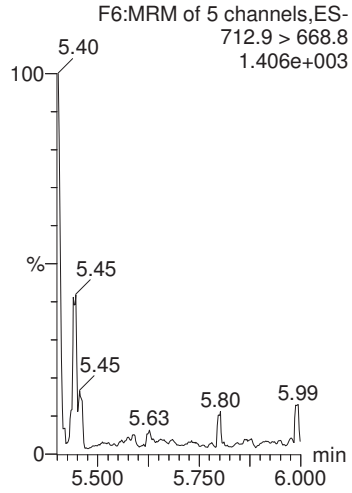
PFDoA



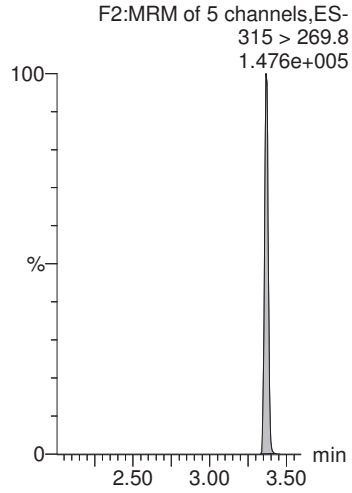
PFTrDA



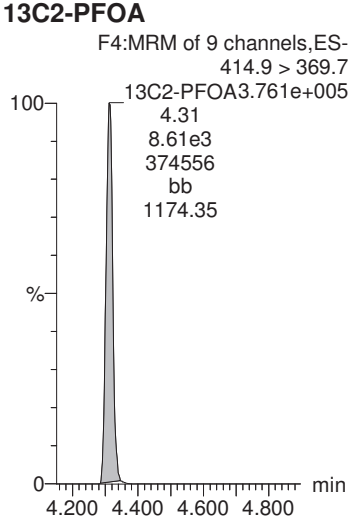
PFTeDA



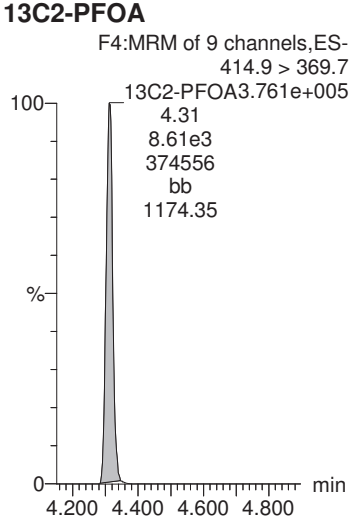
13C2-PFHxA



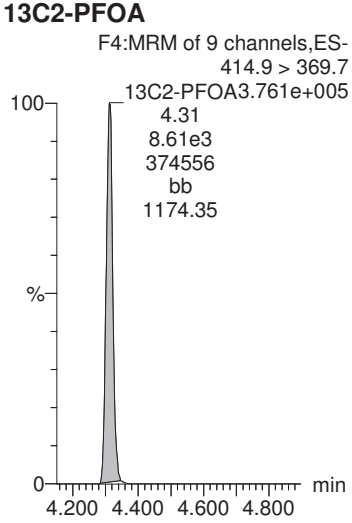
13C2-PFOA



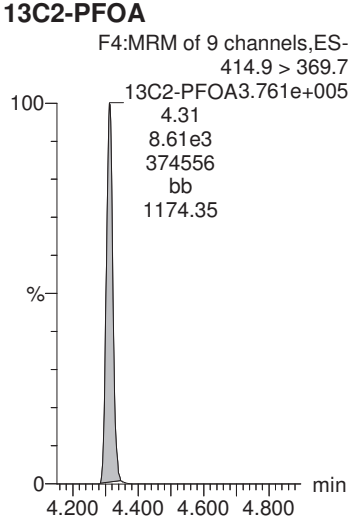
13C2-PFOA



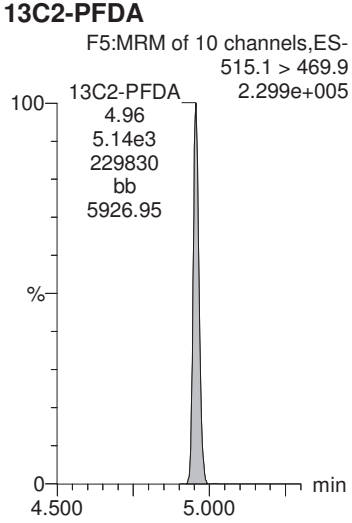
13C2-PFOA



13C2-PFOA



13C2-PFDA



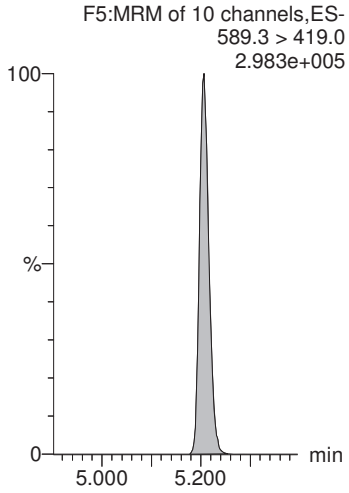
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_13.qld

Last Altered: Friday, January 26, 2018 13:27:26 Pacific Standard Time
Printed: Friday, January 26, 2018 13:28:39 Pacific Standard Time

Name: 180118G2_13, Date: 18-Jan-2018, Time: 18:04:56, ID: B8A0089-BLK1 LRB 0.25, Description: LRB

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-18.qld

Last Altered: Friday, January 26, 2018 13:37:09 Pacific Standard Time
Printed: Friday, January 26, 2018 14:22:25 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_18, Date: 25-Jan-2018, Time: 18:52:08, ID: B8A0089-BS1 LFB 0.25, Description: LFB

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	3.14e3	1.11e4	0.2500		3.02	3.00	8.09	38.163	107.8
2	2	PFHxA	313.2 > 268.9	2.55e3	1.05e4	0.2500		3.37	3.38	2.43	34.630	86.6
3	3	PFHpA	363 > 318.9	7.69e3	1.05e4	0.2500		3.88	3.90	7.34	36.043	90.1
4	4	PFHxS	398.9 > 79.6	3.48e3	1.11e4	0.2500		4.02	4.02	8.96	40.692	111.5
5	5	PFOA	413 > 368.7	7.71e3	1.05e4	0.2500		4.32	4.32	7.36	35.918	89.8
6	6	PFNA	463 > 418.8	8.85e3	1.05e4	0.2500		4.66	4.66	8.45	36.364	90.9
7	7	PFOS	499 >79.9	4.09e3	1.11e4	0.2500		4.72	4.72	10.5	38.567	104.2
8	8	PFDA	513 > 468.8	7.65e3	1.05e4	0.2500		4.99	4.95	7.31	32.603	81.5
9	9	N-MeFOSAA	570.1 > 419.0	3.86e3	7.74e3	0.2500		5.02	5.08	20.0	37.277	93.2
10	10	N-EtFOSAA	584.2 >419.0	2.81e3	7.74e3	0.2500		5.20	5.20	14.5	40.041	100.1
11	11	PFDoA	612.9 > 318.8	1.51e3	1.05e4	0.2500		5.35	5.42	1.44	35.950	89.9
12	12	PFUnA	563 > 518.9	8.16e3	1.05e4	0.2500		5.15	5.20	7.79	35.637	89.1
13	13	PFTrDA	662.9 > 618.9	1.17e4	1.05e4	0.2500		5.68	5.61	11.2	34.303	85.8
14	14	PFTeDA	712.9 > 668.8	1.07e4	1.05e4	0.2500		5.85	5.78	10.2	32.708	81.8
15	15	13C2-PFHxA	315 > 269.8	5.01e3	1.05e4	0.2500	0.486	3.46	3.38	4.78	39.363	98.4
16	16	13C2-PFDA	515.1 > 469.9	6.08e3	1.05e4	0.2500	0.675	4.92	4.95	5.80	34.407	86.0
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.58e3	7.74e3	0.2500	1.076	5.08	5.19	39.2	145.818	91.1
18	18	13C2-PFOA	414.9 > 369.7	1.05e4	1.05e4	0.2500	1.000	4.31	4.32	10.0	40.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.11e4	1.11e4	0.2500	1.000	4.81	4.72	28.7	114.800	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	7.74e3	7.74e3	0.2500	1.000	5.16	5.08	40.0	160.000	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	1.18e4		0.2500	0.934	0.00		17.9	74.485	

GM 1/26/2018

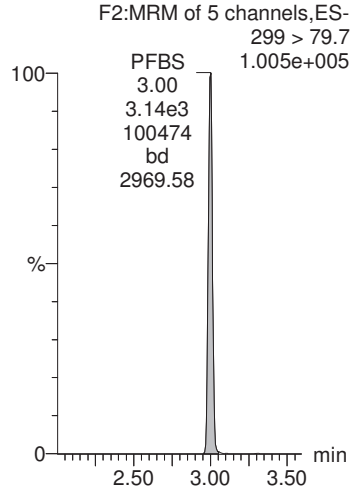
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-18.qld

Last Altered: Friday, January 26, 2018 13:37:09 Pacific Standard Time
Printed: Friday, January 26, 2018 14:22:25 Pacific Standard Time

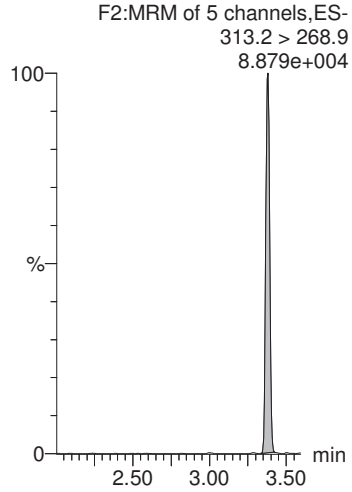
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_18, Date: 25-Jan-2018, Time: 18:52:08, ID: B8A0089-BS1 LFB 0.25, Description: LFB

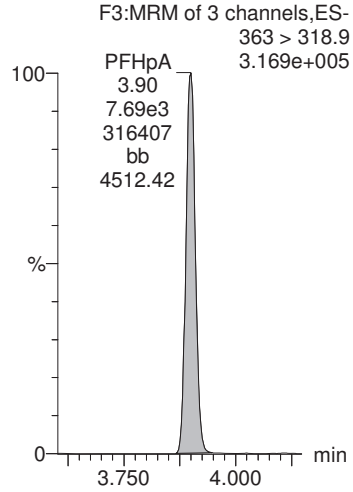
PFBS



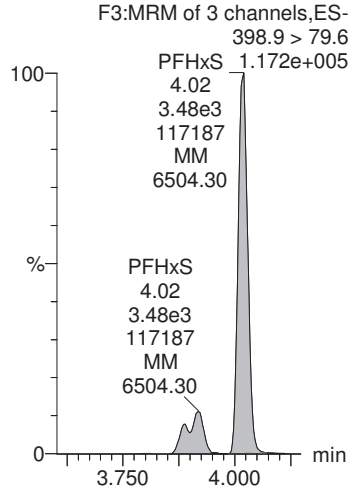
PFHxA



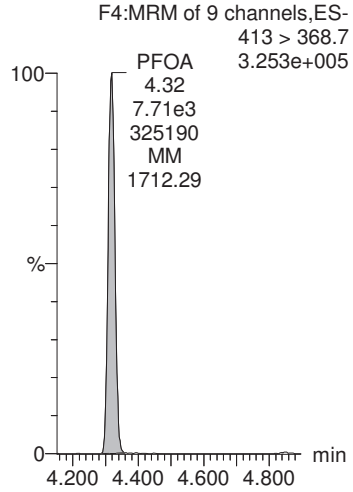
PFHpA



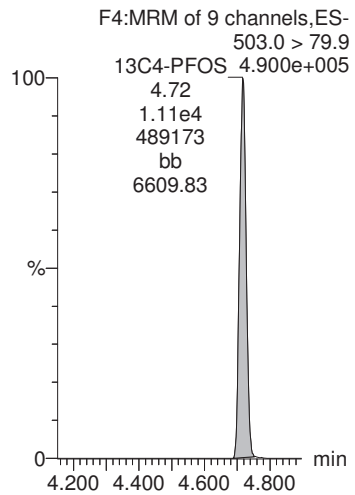
PFHxS



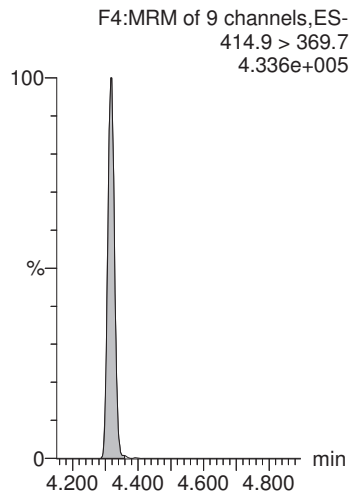
PFOA



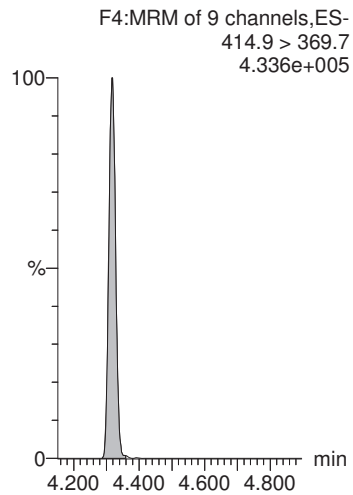
13C4-PFOS



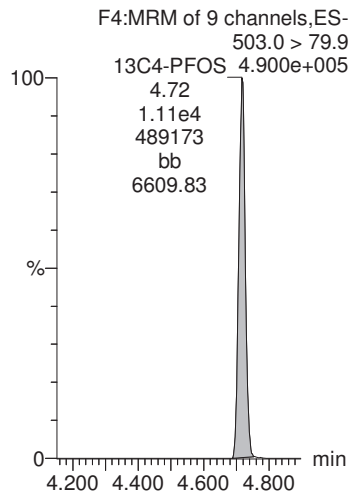
13C2-PFOA



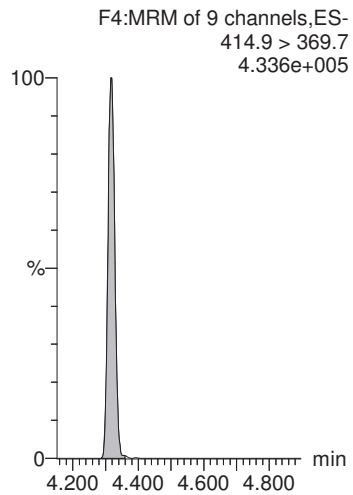
13C2-PFOA



13C4-PFOS



13C2-PFOA



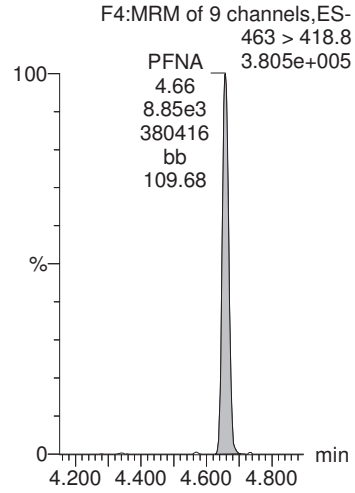
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-18.qld

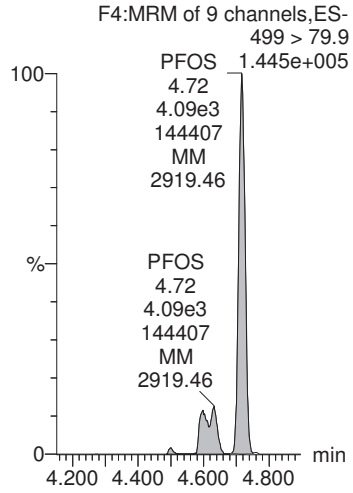
Last Altered: Friday, January 26, 2018 13:37:09 Pacific Standard Time
Printed: Friday, January 26, 2018 14:22:25 Pacific Standard Time

Name: 180125G3_18, Date: 25-Jan-2018, Time: 18:52:08, ID: B8A0089-BS1 LFB 0.25, Description: LFB

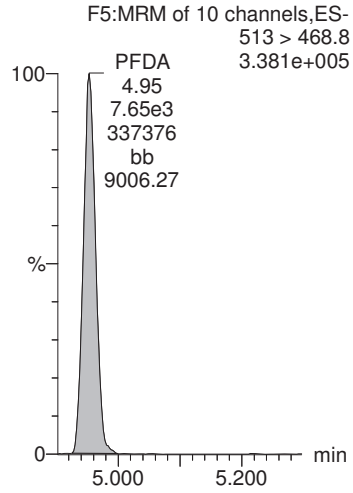
PFNA



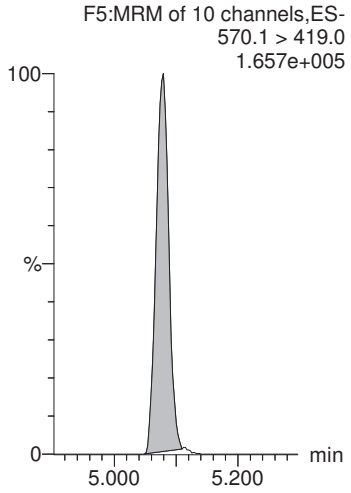
PFOS



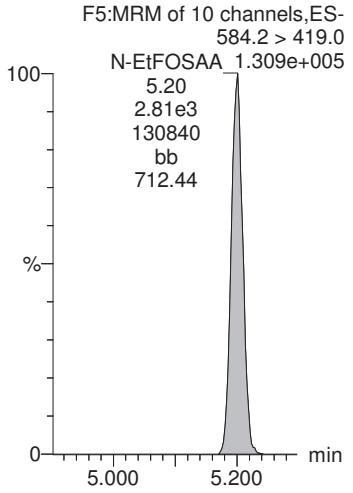
PFDA



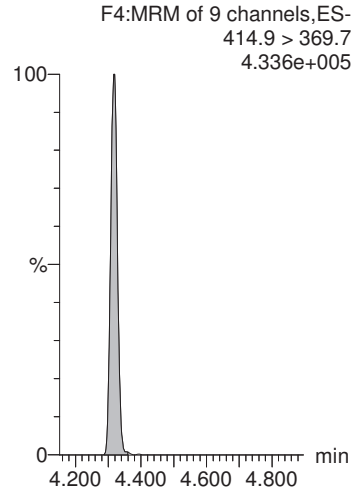
N-MeFOSAA



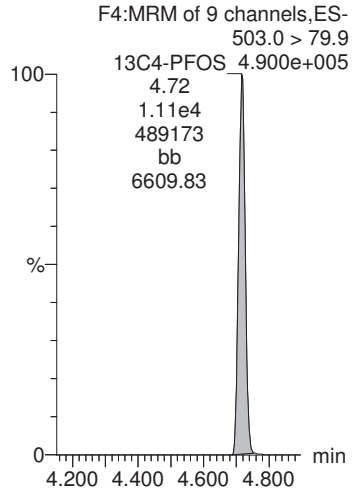
N-EtFOSAA



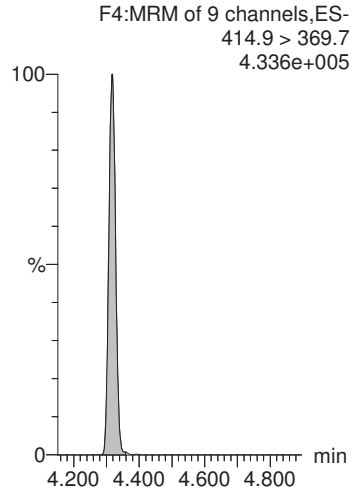
13C2-PFOA



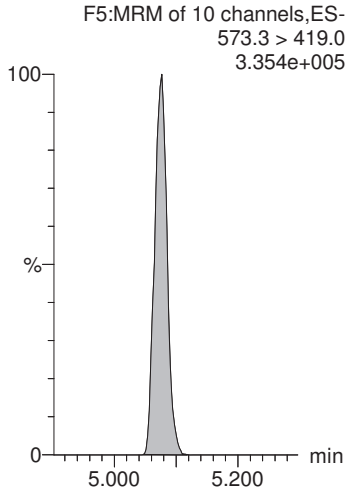
13C4-PFOS



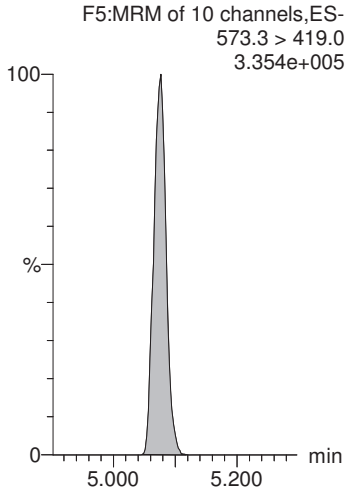
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

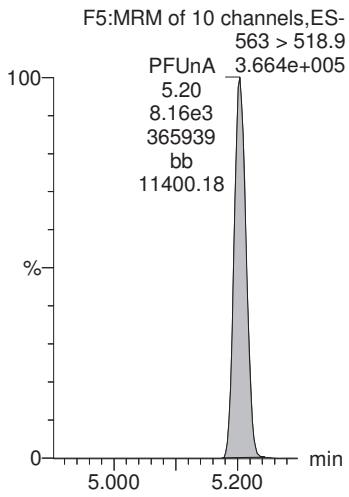
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-18.qld

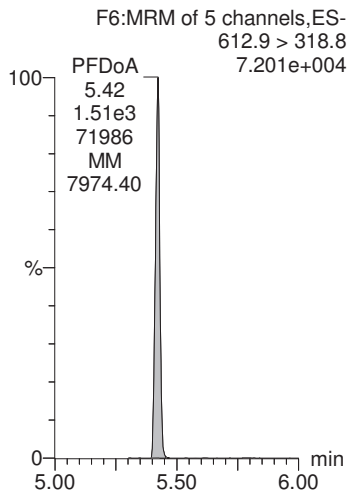
Last Altered: Friday, January 26, 2018 13:37:09 Pacific Standard Time
Printed: Friday, January 26, 2018 14:22:25 Pacific Standard Time

Name: 180125G3_18, Date: 25-Jan-2018, Time: 18:52:08, ID: B8A0089-BS1 LFB 0.25, Description: LFB

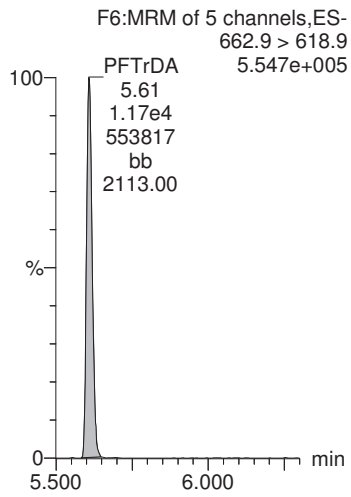
PFUnA



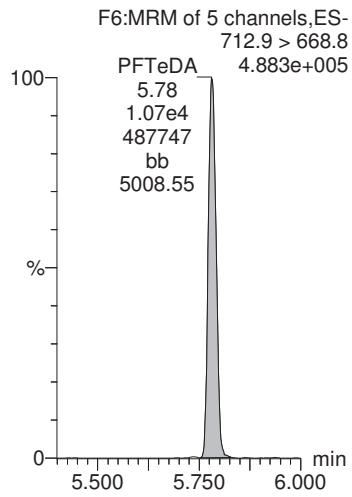
PFDoA



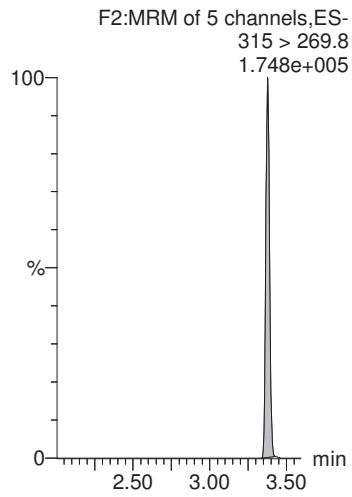
PFTrDA



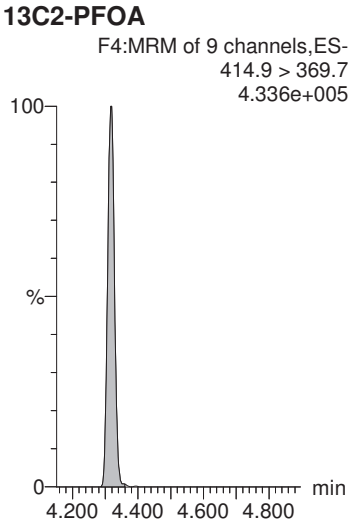
PFTeDA



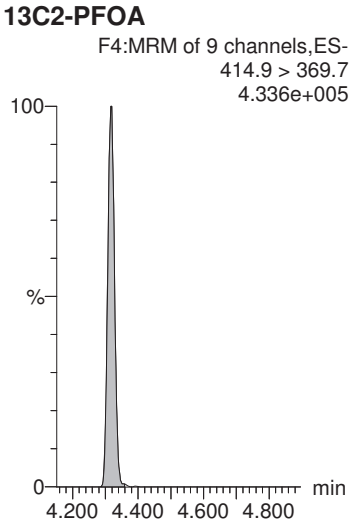
13C2-PFHxA



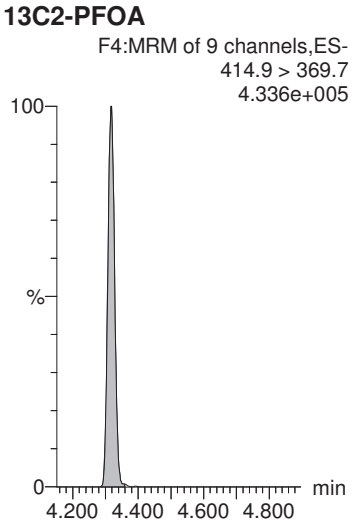
13C2-PFOA



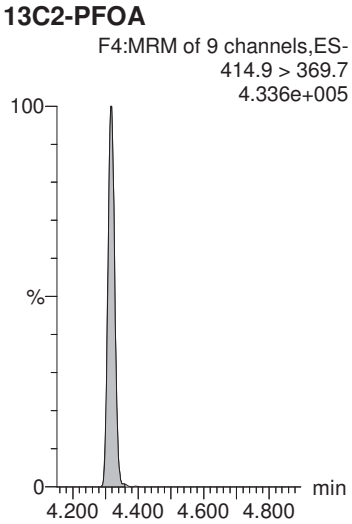
13C2-PFOA



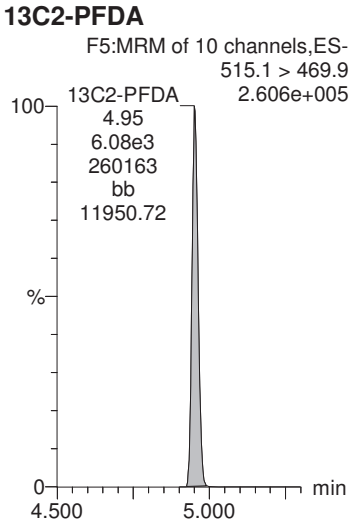
13C2-PFOA



13C2-PFOA



13C2-PFDA



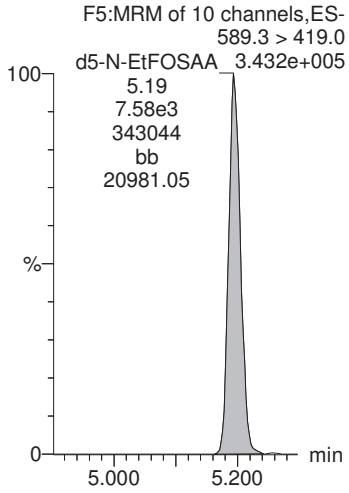
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-18.qld

Last Altered: Friday, January 26, 2018 13:37:09 Pacific Standard Time
Printed: Friday, January 26, 2018 14:22:25 Pacific Standard Time

Name: 180125G3_18, Date: 25-Jan-2018, Time: 18:52:08, ID: B8A0089-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-19.qld

Last Altered: Friday, January 26, 2018 14:23:14 Pacific Standard Time
Printed: Friday, January 26, 2018 14:23:34 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_19, Date: 25-Jan-2018, Time: 19:04:33, ID: 1800085-01 IR54-PSW-VL101-17D 0.24531, Description: IR54-PSW-VL101-17D

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.08e4	0.2453		3.02				
2	2	PFHxA	313.2 > 268.9	7.37e1	1.01e4	0.2453		3.37	3.38	0.0732	1.062	
3	3	PFHpA	363 > 318.9		1.01e4	0.2453		3.88				
4	4	PFHxS	398.9 > 79.6		1.08e4	0.2453		4.02				
5	5	PFOA	413 > 368.7		1.01e4	0.2453		4.31				
6	6	PFNA	463 > 418.8		1.01e4	0.2453		4.66				
7	7	PFOS	499 >79.9		1.08e4	0.2453		4.72				
8	8	PFDA	513 > 468.8	8.14e1	1.01e4	0.2453		4.98	4.95	0.0809	0.368	
9	9	N-MeFOSAA	570.1 > 419.0		6.89e3	0.2453		5.02				
10	10	N-EtFOSAA	584.2 >419.0		6.89e3	0.2453		5.20				
11	11	PFDoA	612.9 > 318.8	3.98e0	1.01e4	0.2453		5.35	5.42	0.00396	0.101	
12	12	PFUnA	563 > 518.9		1.01e4	0.2453		5.15				
13	13	PFTrDA	662.9 > 618.9		1.01e4	0.2453		5.67				
14	14	PFTeDA	712.9 > 668.8		1.01e4	0.2453		5.84				
15	15	13C2-PFHxA	315 > 269.8	4.58e3	1.01e4	0.2453	0.486	3.46	3.38	4.55	38.191	93.7
16	16	13C2-PFDA	515.1 > 469.9	5.72e3	1.01e4	0.2453	0.675	4.92	4.95	5.69	34.366	84.3
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.77e3	6.89e3	0.2453	1.076	5.08	5.20	45.1	170.981	104.9
18	18	13C2-PFOA	414.9 > 369.7	1.01e4	1.01e4	0.2453	1.000	4.31	4.31	10.0	40.765	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	0.2453	1.000	4.81	4.72	28.7	116.995	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.89e3	6.89e3	0.2453	1.000	5.16	5.08	40.0	163.059	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	0.00e0		0.2453	0.934	0.00		0.000		

GM 1/26/2018

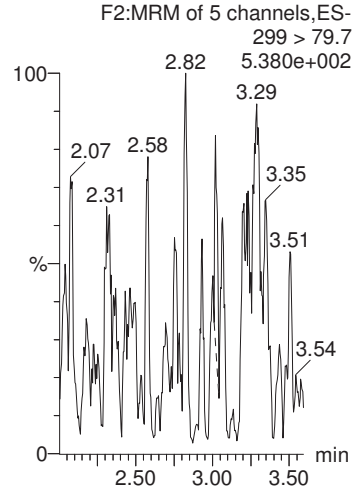
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-19.qld

Last Altered: Friday, January 26, 2018 14:23:14 Pacific Standard Time
Printed: Friday, January 26, 2018 14:23:34 Pacific Standard Time

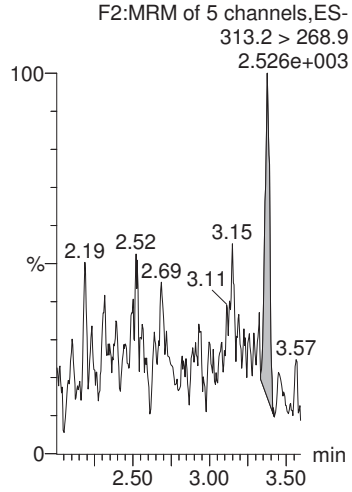
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_19, Date: 25-Jan-2018, Time: 19:04:33, ID: 1800085-01 IR54-PSW-VL101-17D 0.24531, Description: IR54-PSW-VL101-17D

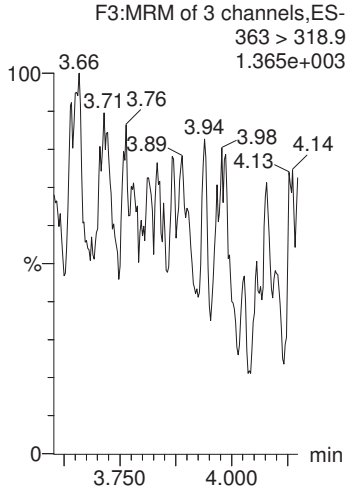
PFBS



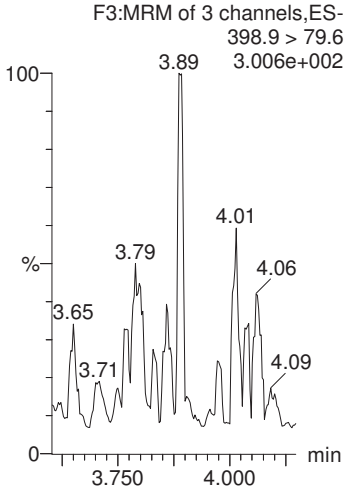
PFHxA



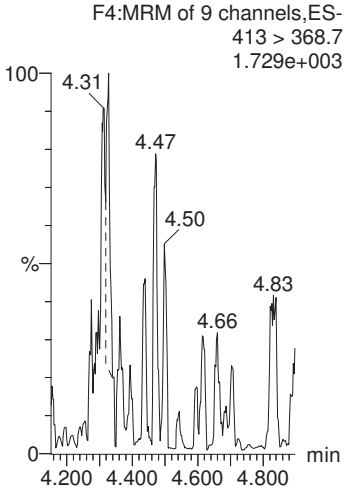
PFHpA



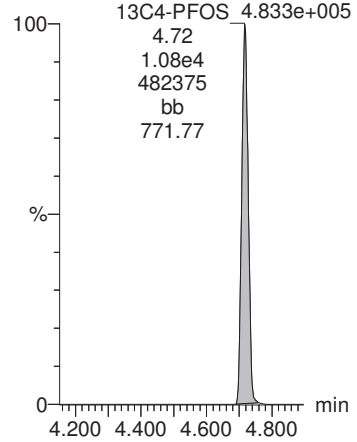
PFHxS



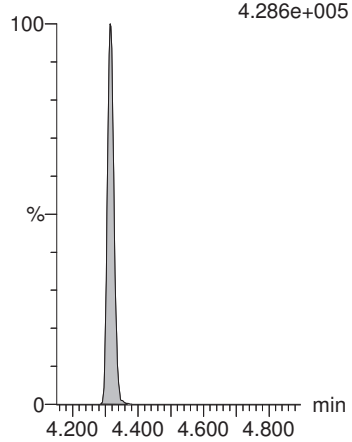
PFOA



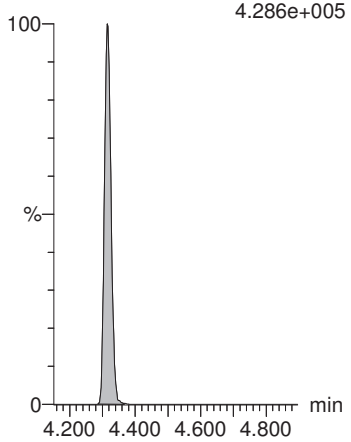
13C4-PFOS



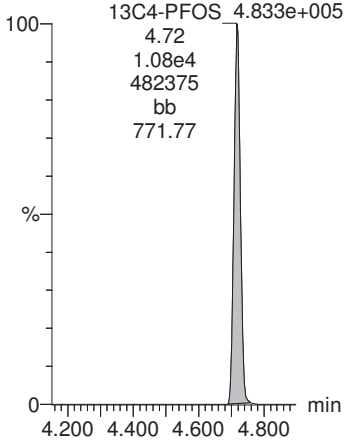
13C2-PFOA



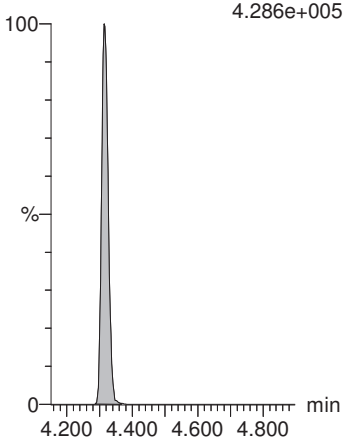
13C2-PFOA



13C4-PFOS



13C2-PFOA



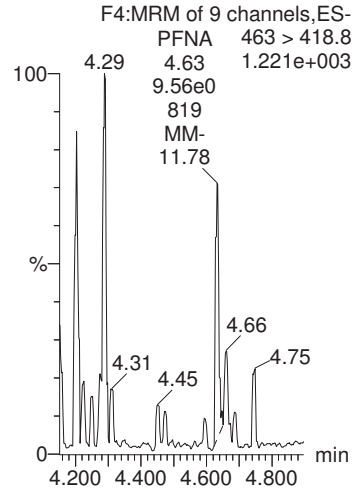
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-19.qld

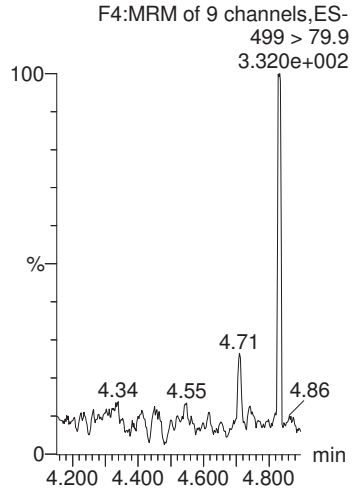
Last Altered: Friday, January 26, 2018 14:23:14 Pacific Standard Time
Printed: Friday, January 26, 2018 14:23:34 Pacific Standard Time

Name: 180125G3_19, Date: 25-Jan-2018, Time: 19:04:33, ID: 1800085-01 IR54-PSW-VL101-17D 0.24531, Description: IR54-PSW-VL101-17D

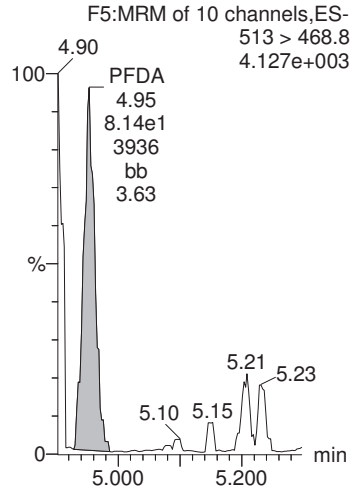
PFNA



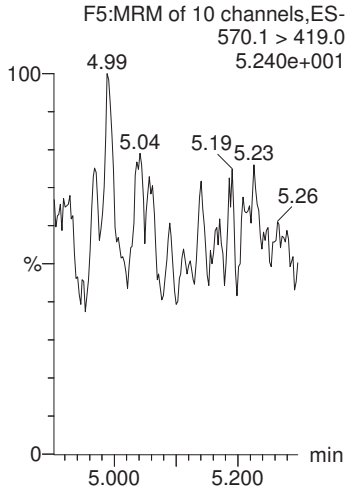
PFOS



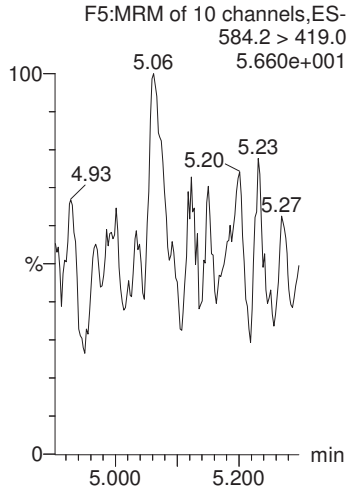
PFDA



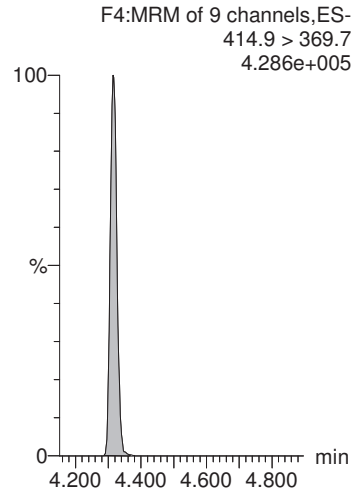
N-MeFOSAA



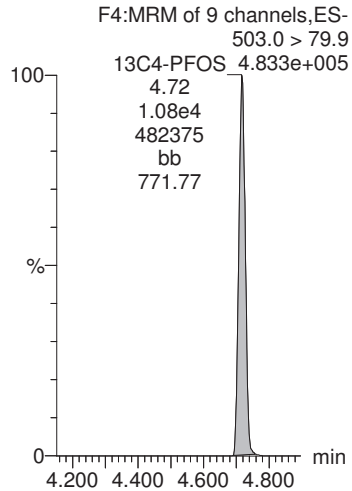
N-EtFOSAA



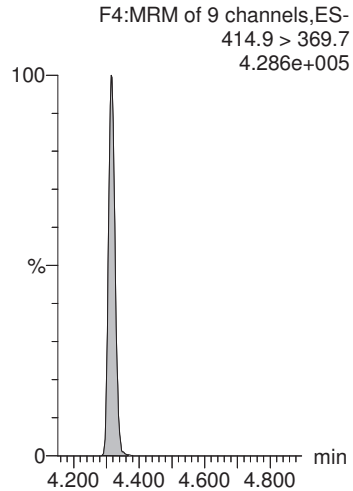
13C2-PFOA



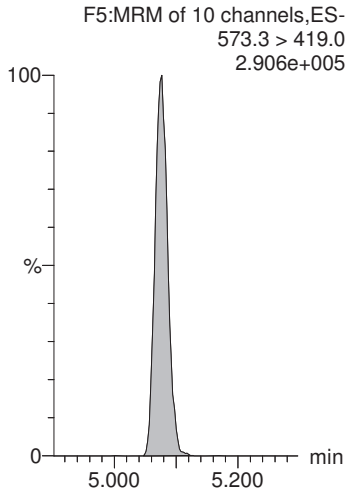
13C4-PFOS



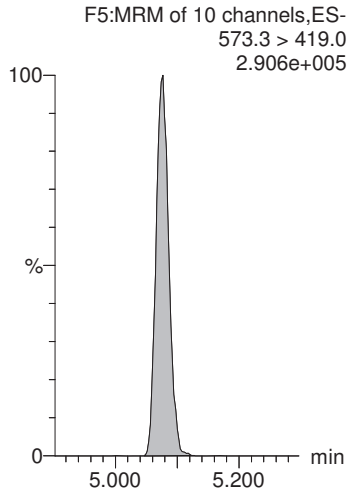
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



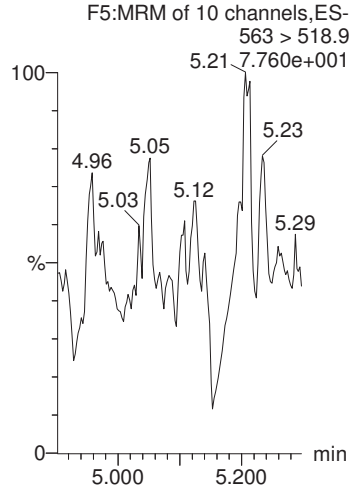
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-19.qld

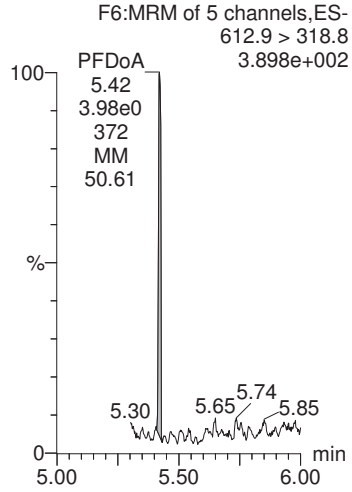
Last Altered: Friday, January 26, 2018 14:23:14 Pacific Standard Time
Printed: Friday, January 26, 2018 14:23:34 Pacific Standard Time

Name: 180125G3_19, Date: 25-Jan-2018, Time: 19:04:33, ID: 1800085-01 IR54-PSW-VL101-17D 0.24531, Description: IR54-PSW-VL101-17D

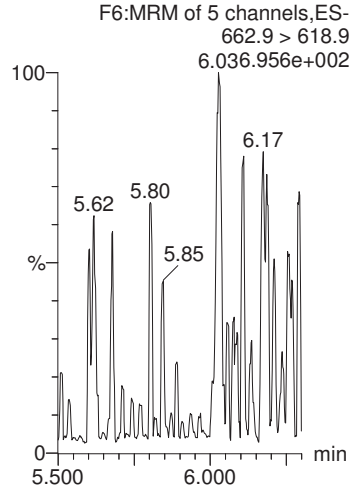
PFUnA



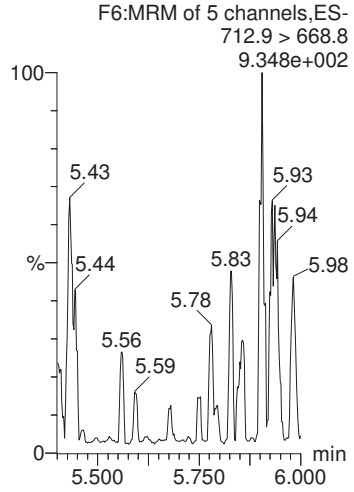
PFDoA



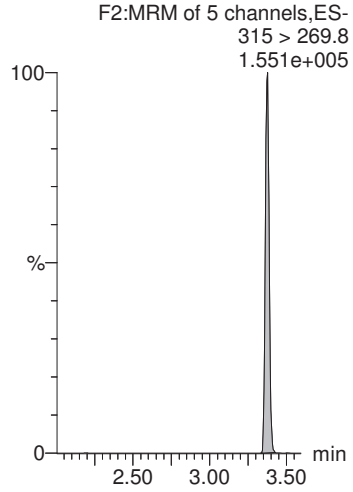
PFTrDA



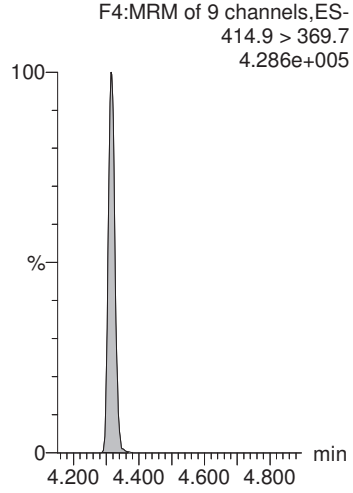
PFTeDA



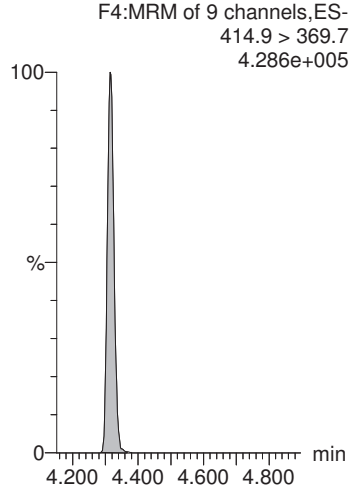
13C2-PFHxA



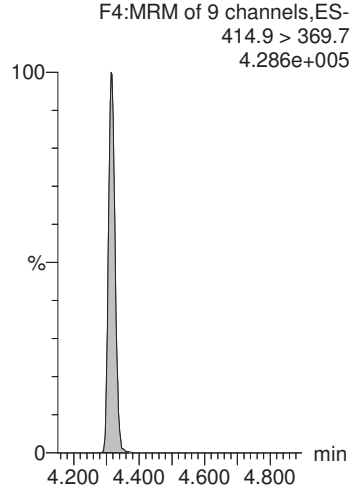
13C2-PFOA



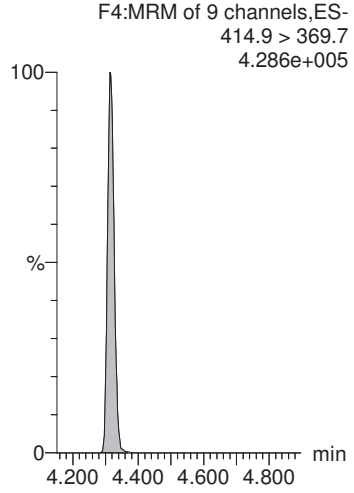
13C2-PFOA



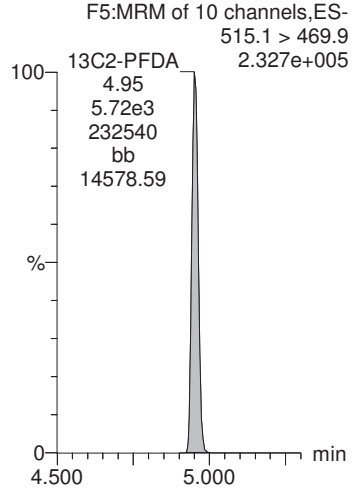
13C2-PFOA



13C2-PFOA



13C2-PFDA



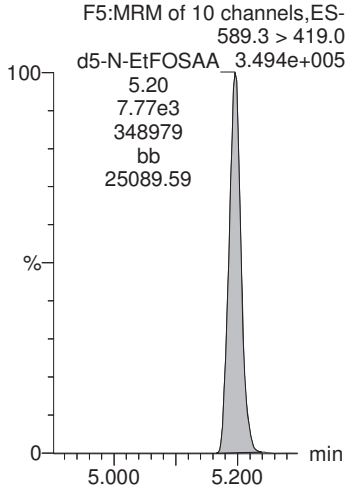
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-19.qld

Last Altered: Friday, January 26, 2018 14:23:14 Pacific Standard Time
Printed: Friday, January 26, 2018 14:23:34 Pacific Standard Time

Name: 180125G3_19, Date: 25-Jan-2018, Time: 19:04:33, ID: 1800085-01 IR54-PSW-VL101-17D 0.24531, Description: IR54-PSW-VL101-17D

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_21.qld

Last Altered: Friday, January 26, 2018 13:30:03 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:35 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_21, Date: 18-Jan-2018, Time: 19:44:17, ID: B8A0089-MS1 LFSM 0.24449, Description: LFSM

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.02e3	9.70e3	0.2445		3.02	3.01	5.98	29.620	
2	2	PFHxA	313.2 > 268.9	1.77e3	8.71e3	0.2445		3.37	3.38	2.03	33.365	
3	3	PFHpA	363 > 318.9	6.83e3	8.71e3	0.2445		3.88	3.89	7.85	36.561	
4	4	PFHxS	398.9 > 79.6	2.82e3	9.70e3	0.2445		4.03	4.02	8.34	36.891	
5	5	PFOA	413 > 368.7	6.82e3	8.71e3	0.2445		4.31	4.32	7.84	41.026	
6	6	PFNA	463 > 418.8	6.76e3	8.71e3	0.2445		4.66	4.66	7.76	38.821	
7	7	PFOS	499 >79.9	3.30e3	9.70e3	0.2445		4.73	4.73	9.78	35.212	
8	8	PFDA	513 > 468.8	5.55e3	8.71e3	0.2445		4.98	4.96	6.37	34.683	
9	9	N-MeFOSAA	570.1 > 419.0	2.34e3	4.94e3	0.2445		5.03	5.09	18.9	37.362	
10	10	N-EtFOSAA	584.2 >419.0	2.09e3	4.94e3	0.2445		5.21	5.22	16.9	47.971	
11	11	PFDoA	612.9 > 318.8	1.20e3	8.71e3	0.2445		5.35	5.44	1.38	37.085	
12	12	PFUnA	563 > 518.9	6.29e3	8.71e3	0.2445		5.15	5.22	7.22	38.685	
13	13	PFTrDA	662.9 > 618.9	8.34e3	8.71e3	0.2445		5.67	5.64	9.58	32.946	
14	14	PFTeDA	712.9 > 668.8	8.62e3	8.71e3	0.2445		5.84	5.81	9.90	35.713	
15	15	13C2-PFHxA	315 > 269.8	3.92e3	8.71e3	0.2445	0.517	3.46	3.37	4.51	35.624	87.1
16	16	13C2-PFDA	515.1 > 469.9	4.19e3	8.71e3	0.2445	0.543	4.92	4.96	4.81	36.273	88.7
17	17	d5-N-EtFOSAA	589.3 > 419.0	5.70e3	4.94e3	0.2445	1.081	5.09	5.21	46.2	174.617	106.7
18	18	13C2-PFOA	414.9 > 369.7	8.71e3	8.71e3	0.2445	1.000	4.31	4.31	10.0	40.901	100.0
19	19	13C4-PFOS	503.0 > 79.9	9.70e3	9.70e3	0.2445	1.000	4.81	4.73	28.7	117.387	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	4.94e3	4.94e3	0.2445	1.000	5.16	5.09	40.0	163.606	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	1.01e4		0.2445	0.945	0.00		17.6	76.238	

GM 1/26/2018

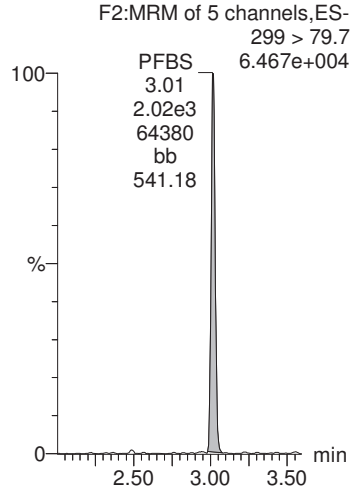
Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_21.qld

Last Altered: Friday, January 26, 2018 13:30:03 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:35 Pacific Standard Time

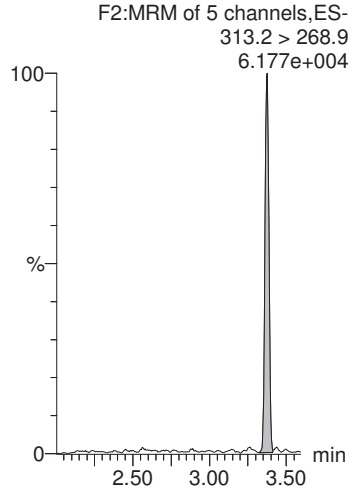
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_21, Date: 18-Jan-2018, Time: 19:44:17, ID: B8A0089-MS1 LFSM 0.24449, Description: LFSM

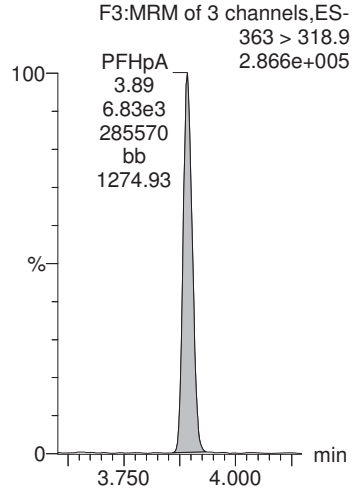
PFBS



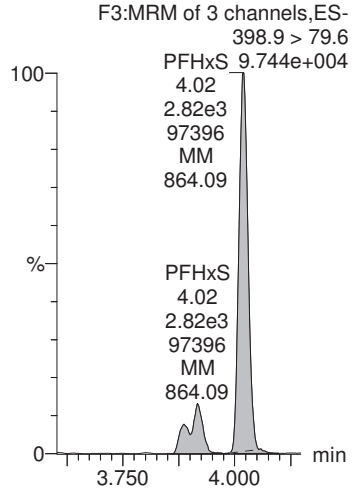
PFHxA



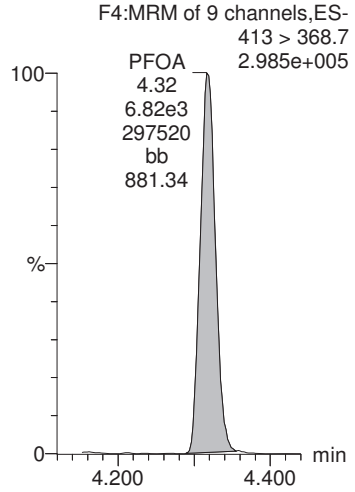
PFHpA



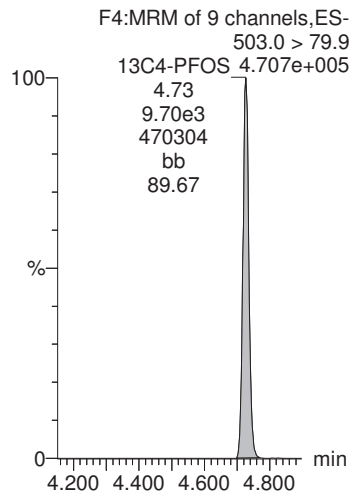
PFHxS



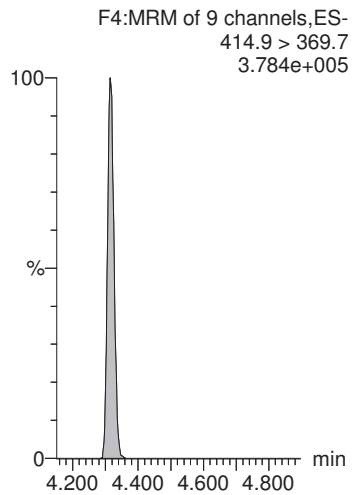
PFOA



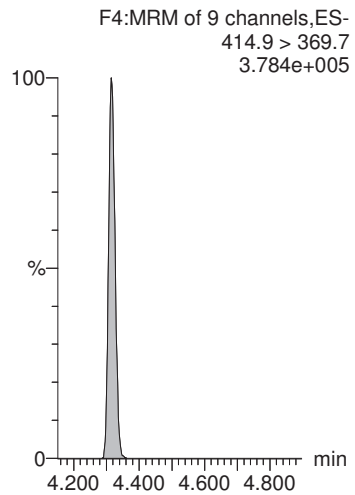
13C4-PFOS



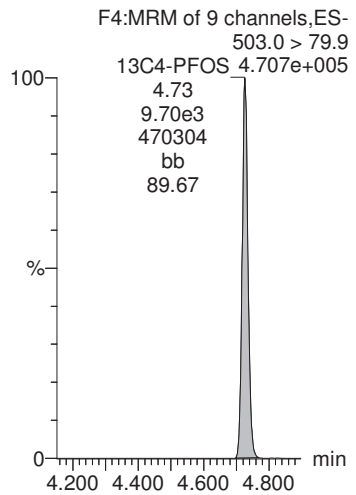
13C2-PFOA



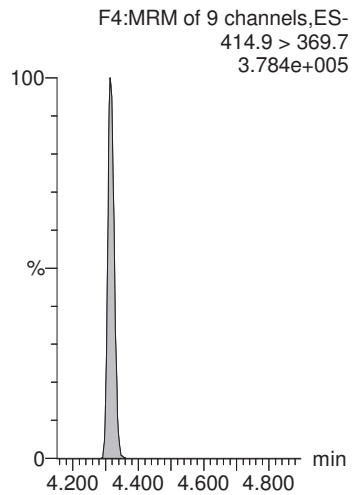
13C2-PFOA



13C4-PFOS



13C2-PFOA



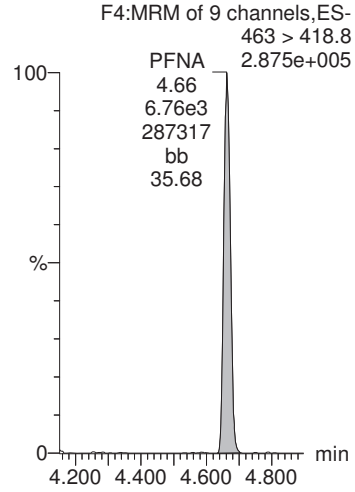
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_21.qld

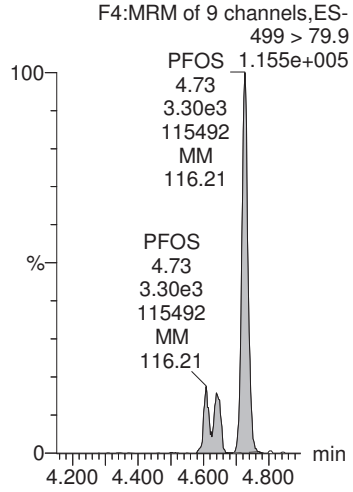
Last Altered: Friday, January 26, 2018 13:30:03 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:35 Pacific Standard Time

Name: 180118G2_21, Date: 18-Jan-2018, Time: 19:44:17, ID: B8A0089-MS1 LFSM 0.24449, Description: LFSM

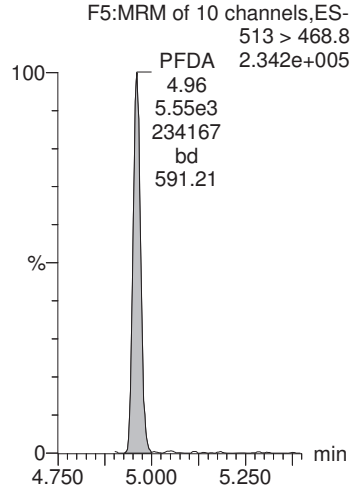
PFNA



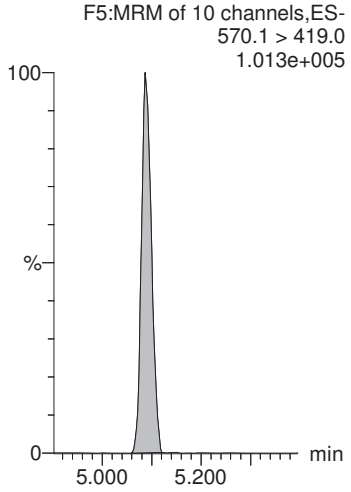
PFOS



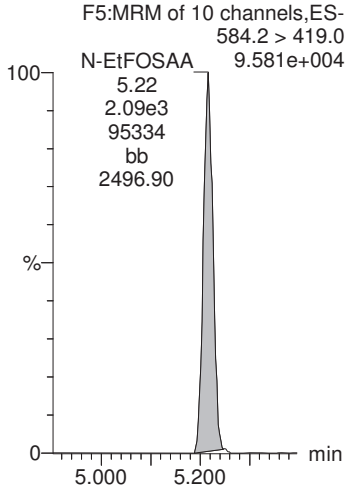
PFDA



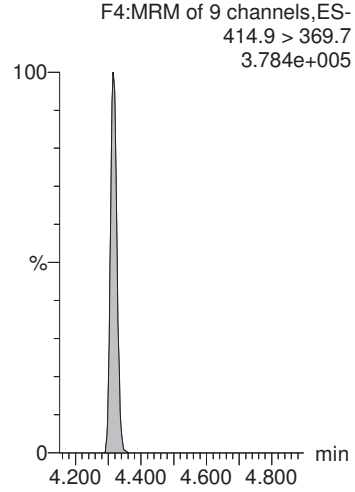
N-MeFOSAA



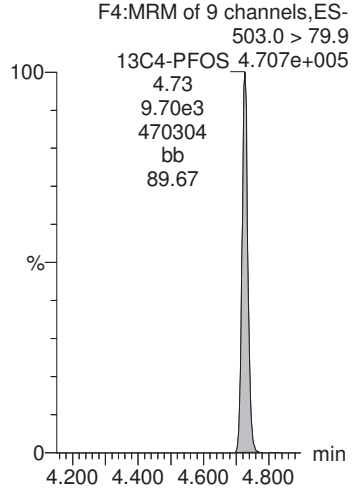
N-EtFOSAA



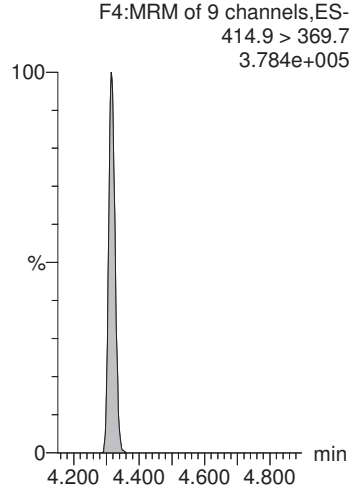
13C2-PFOA



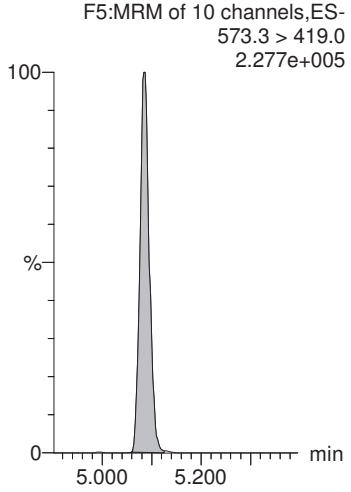
13C4-PFOS



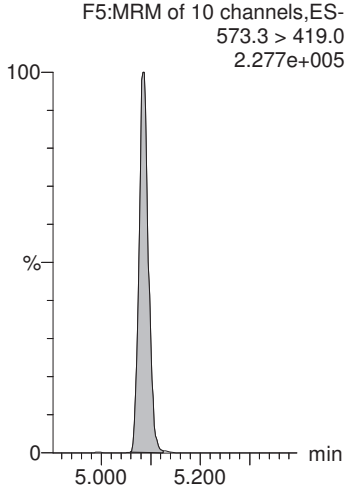
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

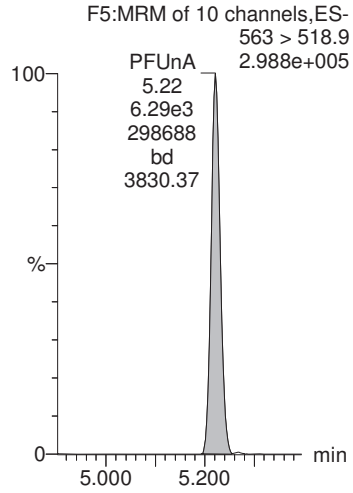
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_21.qld

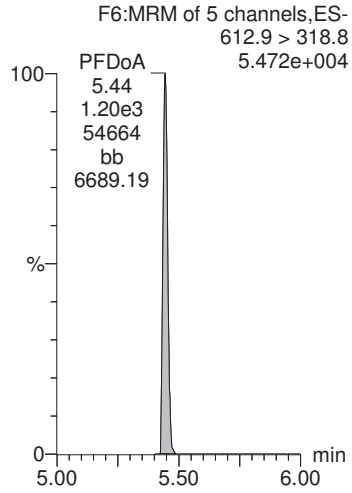
Last Altered: Friday, January 26, 2018 13:30:03 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:35 Pacific Standard Time

Name: 180118G2_21, Date: 18-Jan-2018, Time: 19:44:17, ID: B8A0089-MS1 LFSM 0.24449, Description: LFSM

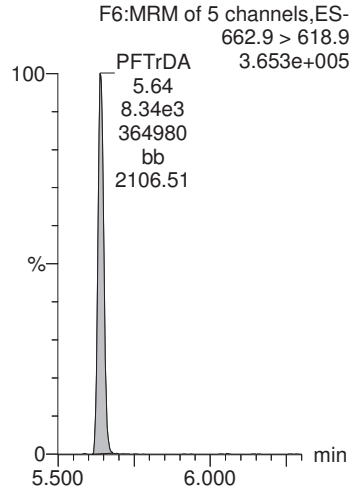
PFUnA



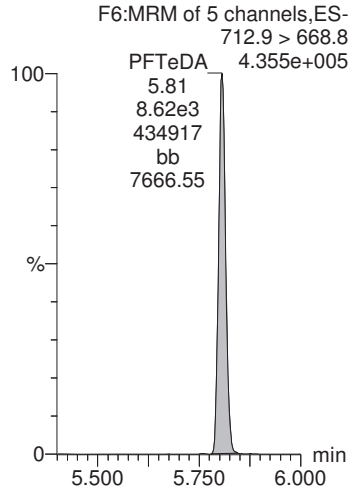
PFDoA



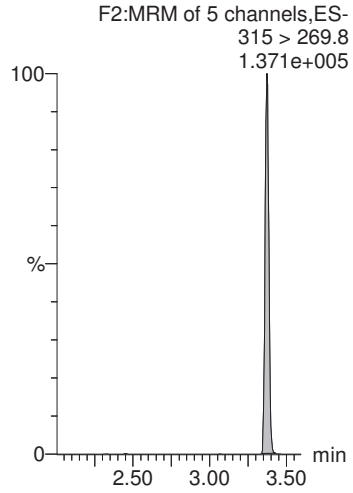
PFTrDA



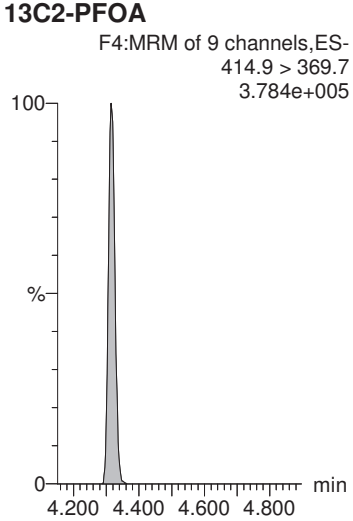
PFTeDA



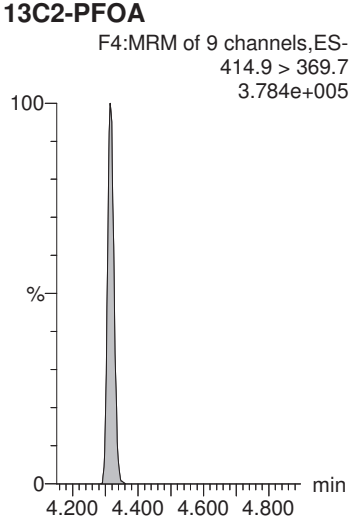
13C2-PFHxA



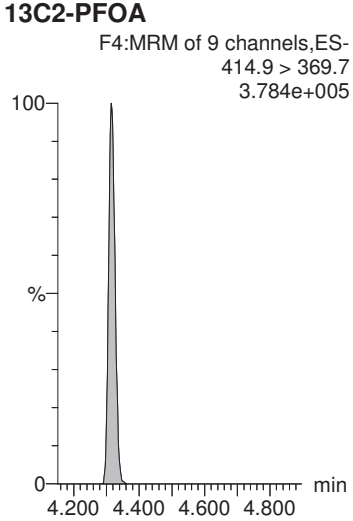
13C2-PFOA



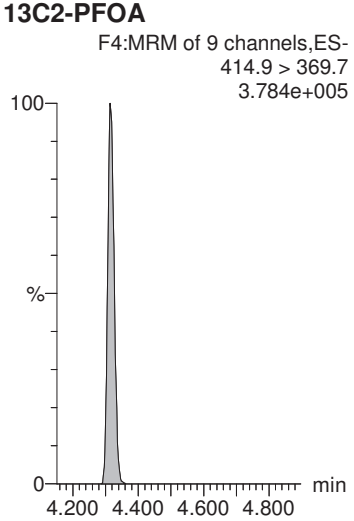
13C2-PFOA



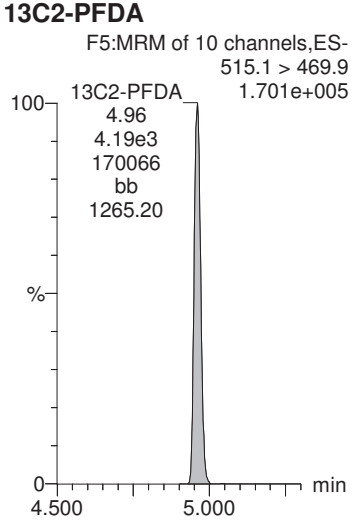
13C2-PFOA



13C2-PFOA



13C2-PFDA



GM 1/26/2018

Vista Analytical Laboratory

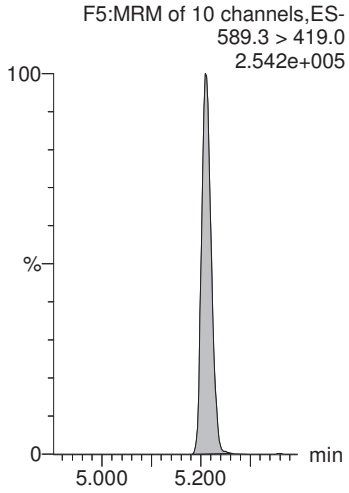
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_21.qld

Last Altered: Friday, January 26, 2018 13:30:03 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:35 Pacific Standard Time

Name: 180118G2_21, Date: 18-Jan-2018, Time: 19:44:17, ID: B8A0089-MS1 LFSM 0.24449, Description: LFSM

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_22.qld

Last Altered: Friday, January 26, 2018 13:32:15 Pacific Standard Time
Printed: Friday, January 26, 2018 13:34:10 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_22, Date: 18-Jan-2018, Time: 19:56:41, ID: B8A0089-MSD1 LFSMD 0.24187, Description: LFSMD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.19e3	8.86e3	0.2419		3.02	3.01	7.10	35.498	
2	2	PFHxA	313.2 > 268.9	1.89e3	8.41e3	0.2419		3.37	3.37	2.25	37.352	
3	3	PFHpA	363 > 318.9	7.02e3	8.41e3	0.2419		3.88	3.89	8.35	39.311	
4	4	PFHxS	398.9 > 79.6	2.75e3	8.86e3	0.2419		4.02	4.02	8.92	39.860	
5	5	PFOA	413 > 368.7	7.01e3	8.41e3	0.2419		4.31	4.31	8.33	44.083	
6	6	PFNA	463 > 418.8	7.22e3	8.41e3	0.2419		4.66	4.66	8.59	43.423	
7	7	PFOS	499 >79.9	3.16e3	8.86e3	0.2419		4.72	4.73	10.2	37.312	
8	8	PFDA	513 > 468.8	5.83e3	8.41e3	0.2419		4.98	4.96	6.93	38.177	
9	9	N-MeFOSAA	570.1 > 419.0	2.69e3	4.94e3	0.2419		5.03	5.09	21.8	43.485	
10	10	N-EtFOSAA	584.2 >419.0	1.77e3	4.94e3	0.2419		5.21	5.21	14.3	41.014	
11	11	PFDoA	612.9 > 318.8	1.20e3	8.41e3	0.2419		5.35	5.44	1.42	38.632	
12	12	PFUnA	563 > 518.9	5.44e3	8.41e3	0.2419		5.15	5.22	6.47	35.035	
13	13	PFTrDA	662.9 > 618.9	8.96e3	8.41e3	0.2419		5.67	5.63	10.7	37.058	
14	14	PFTeDA	712.9 > 668.8	8.07e3	8.41e3	0.2419		5.84	5.80	9.60	34.996	
15	15	13C2-PFHxA	315 > 269.8	3.91e3	8.41e3	0.2419	0.517	3.46	3.37	4.65	37.145	89.8
16	16	13C2-PFDA	515.1 > 469.9	4.19e3	8.41e3	0.2419	0.543	4.92	4.96	4.98	37.936	91.8
17	17	d5-N-EtFOSAA	589.3 > 419.0	5.57e3	4.94e3	0.2419	1.081	5.09	5.21	45.1	172.618	104.4
18	18	13C2-PFOA	414.9 > 369.7	8.41e3	8.41e3	0.2419	1.000	4.31	4.31	10.0	41.345	100.0
19	19	13C4-PFOS	503.0 > 79.9	8.86e3	8.86e3	0.2419	1.000	4.81	4.72	28.7	118.659	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	4.94e3	4.94e3	0.2419	1.000	5.16	5.09	40.0	165.378	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	1.02e4		0.2419	0.945	0.00		18.6	81.395	

GM 1/26/2018

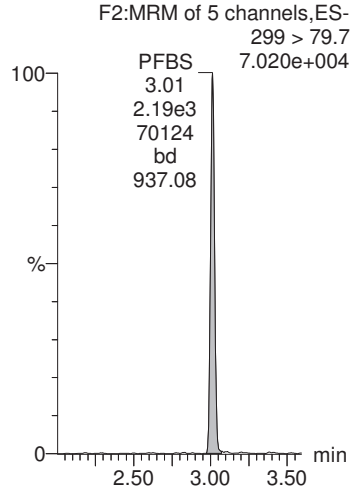
Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_22.qld

Last Altered: Friday, January 26, 2018 13:32:15 Pacific Standard Time
Printed: Friday, January 26, 2018 13:34:10 Pacific Standard Time

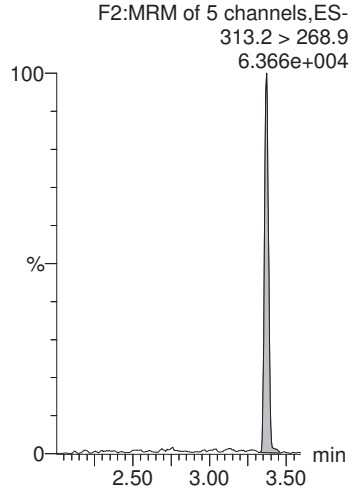
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180118G2_22, Date: 18-Jan-2018, Time: 19:56:41, ID: B8A0089-MSD1 LFSMD 0.24187, Description: LFSMD

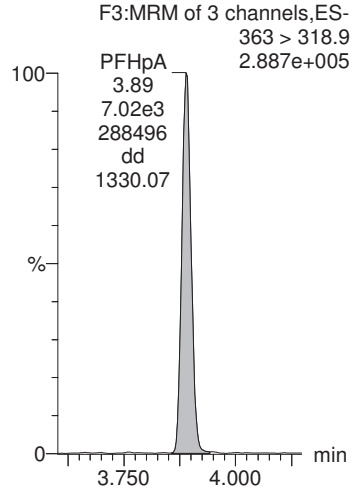
PFBS



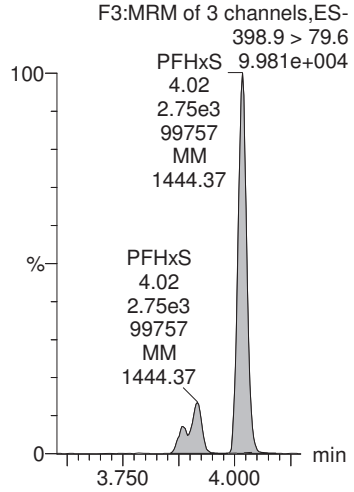
PFHxA



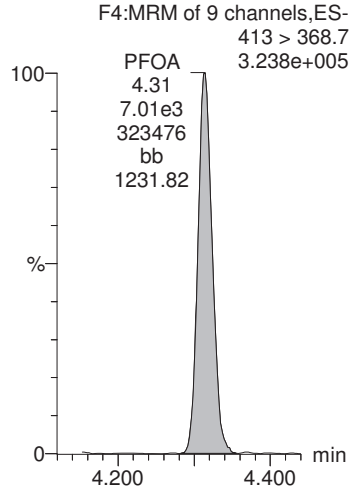
PFHpA



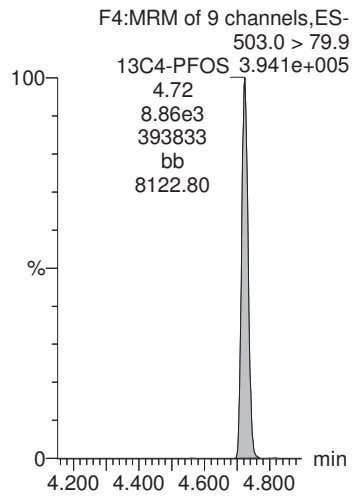
PFHxS



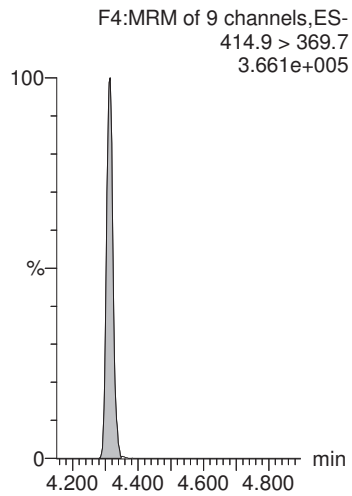
PFOA



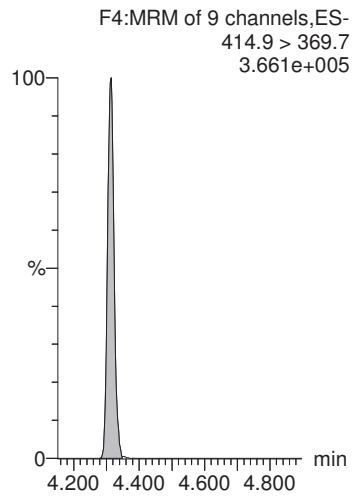
13C4-PFOS



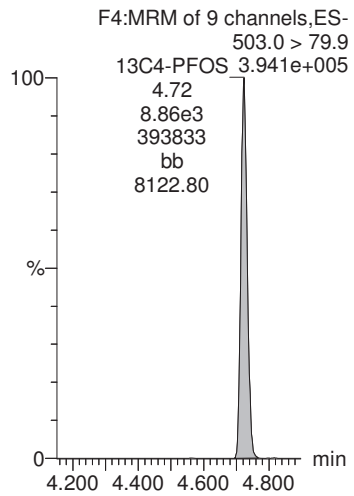
13C2-PFOA



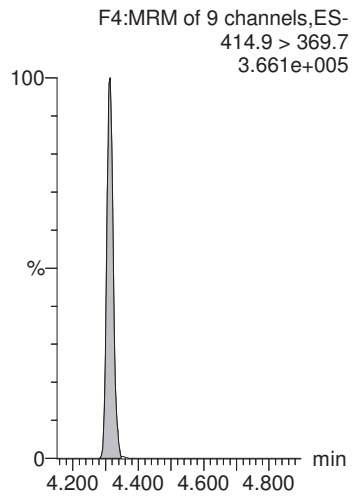
13C2-PFOA



13C4-PFOS



13C2-PFOA



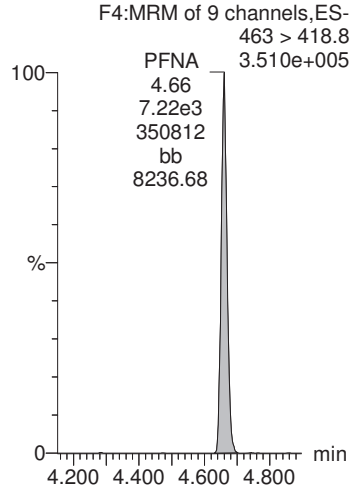
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_22.qld

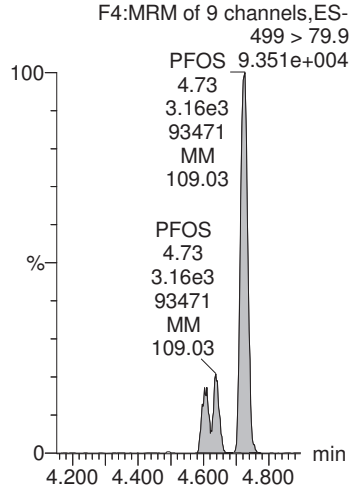
Last Altered: Friday, January 26, 2018 13:32:15 Pacific Standard Time
Printed: Friday, January 26, 2018 13:34:10 Pacific Standard Time

Name: 180118G2_22, Date: 18-Jan-2018, Time: 19:56:41, ID: B8A0089-MSD1 LFSMD 0.24187, Description: LFSMD

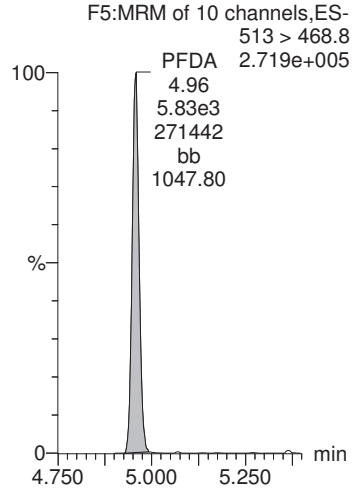
PFNA



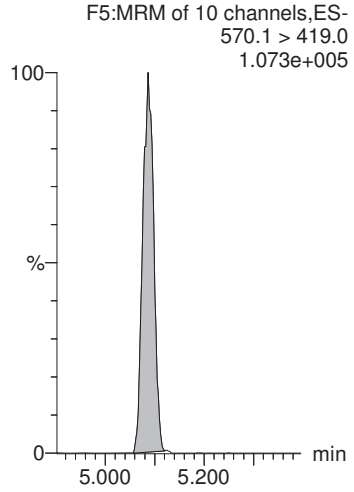
PFOS



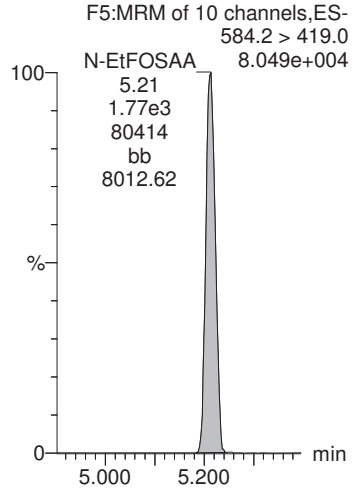
PFDA



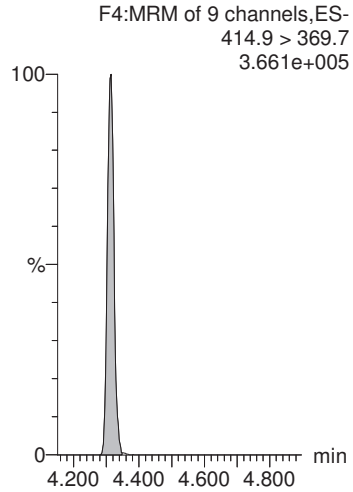
N-MeFOSAA



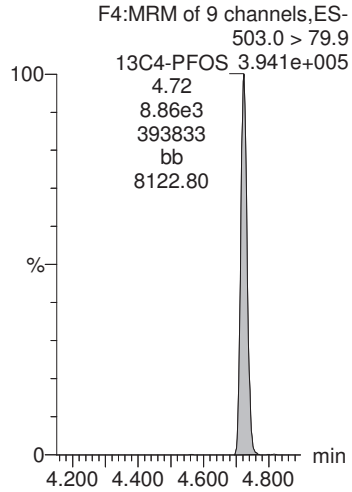
N-EtFOSAA



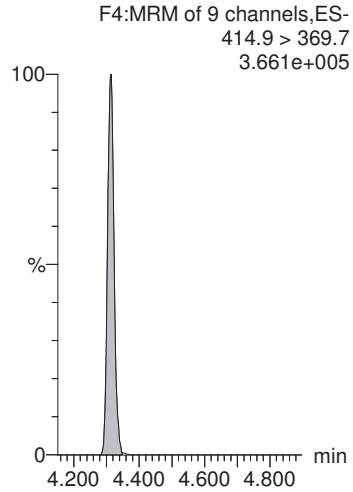
13C2-PFOA



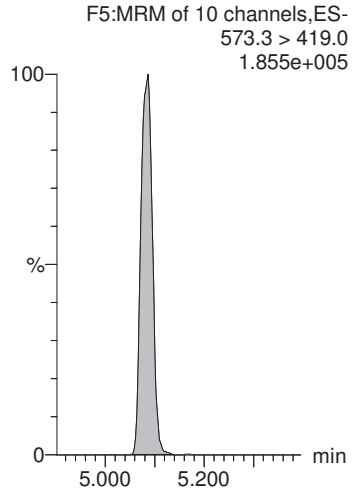
13C4-PFOS



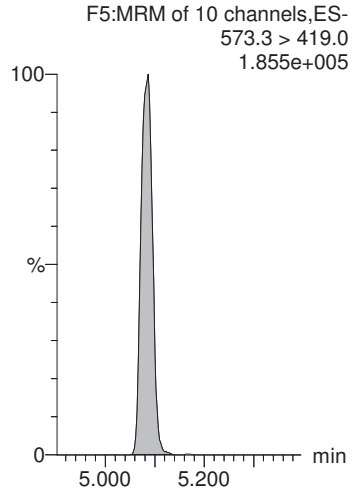
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

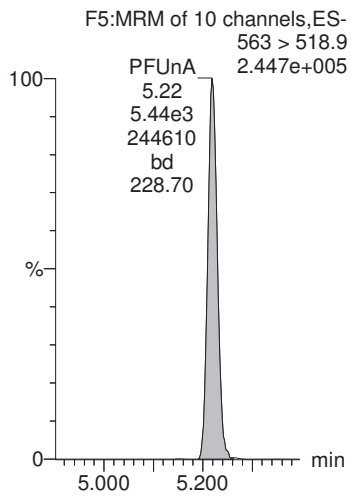
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_22.qld

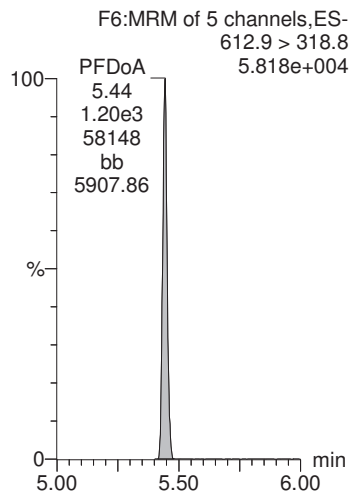
Last Altered: Friday, January 26, 2018 13:32:15 Pacific Standard Time
Printed: Friday, January 26, 2018 13:34:10 Pacific Standard Time

Name: 180118G2_22, Date: 18-Jan-2018, Time: 19:56:41, ID: B8A0089-MSD1 LFSMD 0.24187, Description: LFSMD

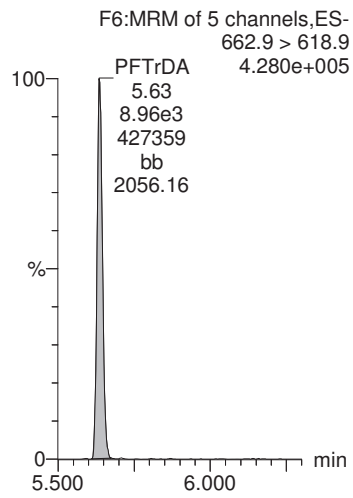
PFUnA



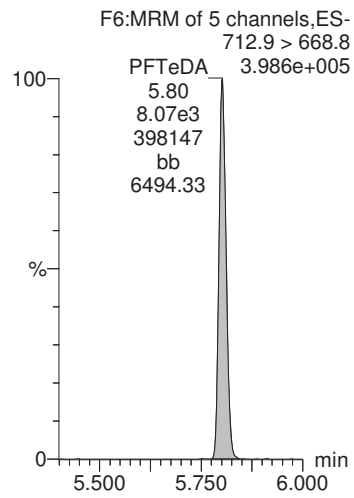
PFDoA



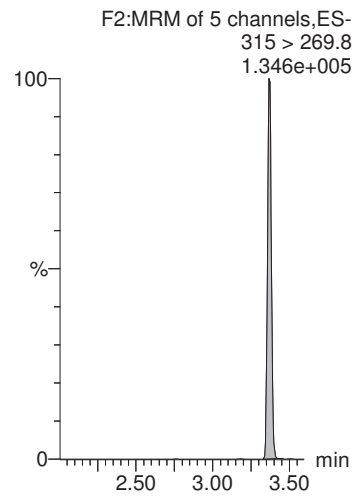
PFTrDA



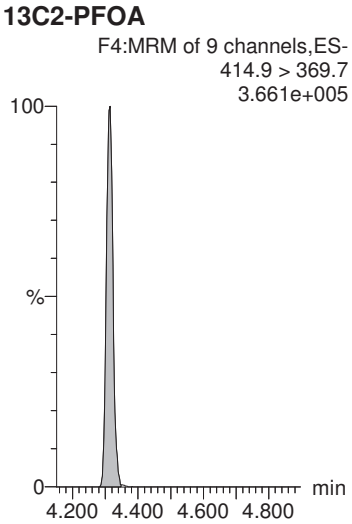
PFTeDA



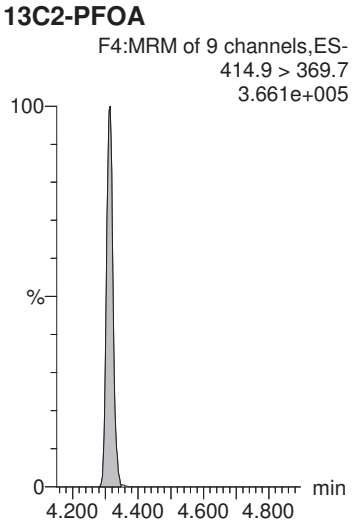
13C2-PFHxA



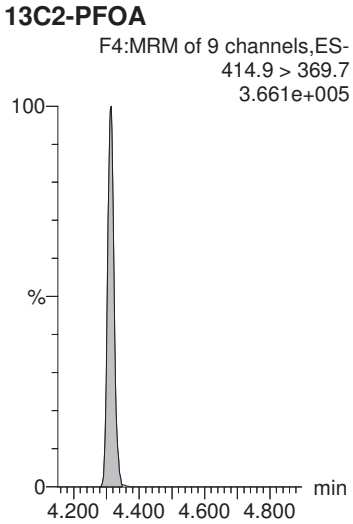
13C2-PFOA



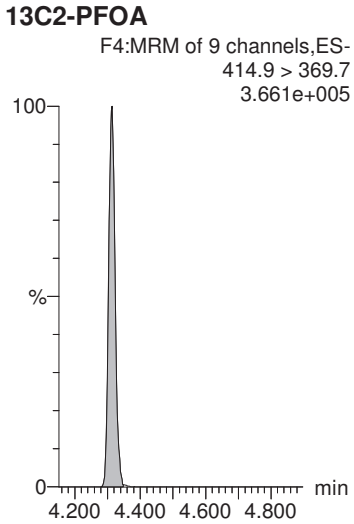
13C2-PFOA



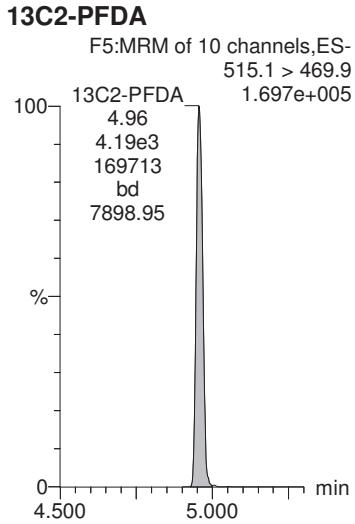
13C2-PFOA



13C2-PFOA



13C2-PFDA



GM 1/26/2018

Vista Analytical Laboratory

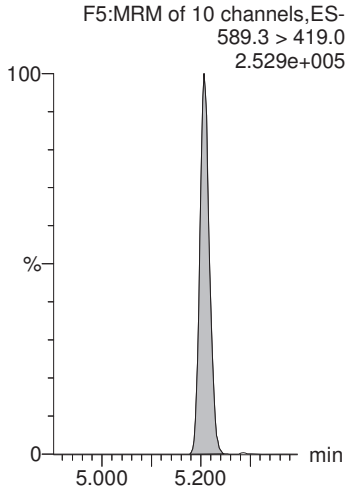
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_22.qld

Last Altered: Friday, January 26, 2018 13:32:15 Pacific Standard Time
Printed: Friday, January 26, 2018 13:34:10 Pacific Standard Time

Name: 180118G2_22, Date: 18-Jan-2018, Time: 19:56:41, ID: B8A0089-MSD1 LFSMD 0.24187, Description: LFSMD

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-20.qld

Last Altered: Friday, January 26, 2018 14:26:30 Pacific Standard Time
Printed: Friday, January 26, 2018 14:26:54 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_20, Date: 25-Jan-2018, Time: 19:16:58, ID: 1800085-02 IR54-PSW-VL101D-17D 0.24722, Description: IR54-PSW-VL101D-17D

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.16e4	0.2472		3.02				
2	2	PFHxA	313.2 > 268.9	9.26e1	1.02e4	0.2472		3.37	3.38	0.0910	1.310	
3	3	PFHpA	363 > 318.9		1.02e4	0.2472		3.88				
4	4	PFHxS	398.9 > 79.6		1.16e4	0.2472		4.02				
5	5	PFOA	413 > 368.7	4.99e1	1.02e4	0.2472		4.31	4.31	0.0490	0.242	
6	6	PFNA	463 > 418.8	1.71e1	1.02e4	0.2472		4.66	4.66	0.0168	0.073	
7	7	PFOS	499 >79.9		1.16e4	0.2472		4.72				
8	8	PFDA	513 > 468.8	5.36e1	1.02e4	0.2472		4.98	4.96	0.0527	0.238	
9	9	N-MeFOSAA	570.1 > 419.0	2.17e0	6.83e3	0.2472		5.01	5.07	0.0127	0.024	
10	10	N-EtFOSAA	584.2 >419.0		6.83e3	0.2472		5.19				
11	11	PFDoA	612.9 > 318.8		1.02e4	0.2472		5.35				
12	12	PFUnA	563 > 518.9		1.02e4	0.2472		5.15				
13	13	PFTrDA	662.9 > 618.9		1.02e4	0.2472		5.67				
14	14	PFTeDA	712.9 > 668.8	8.80e0	1.02e4	0.2472		5.84	5.77	0.00865	0.028	
15	15	13C2-PFHxA	315 > 269.8	4.64e3	1.02e4	0.2472	0.486	3.46	3.38	4.56	37.919	93.7
16	16	13C2-PFDA	515.1 > 469.9	5.33e3	1.02e4	0.2472	0.675	4.92	4.95	5.23	31.380	77.6
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.08e3	6.83e3	0.2472	1.076	5.07	5.20	41.5	155.929	96.4
18	18	13C2-PFOA	414.9 > 369.7	1.02e4	1.02e4	0.2472	1.000	4.31	4.31	10.0	40.450	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.16e4	1.16e4	0.2472	1.000	4.81	4.72	28.7	116.091	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.83e3	6.83e3	0.2472	1.000	5.16	5.07	40.0	161.799	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	4.99e1		0.2472	0.934	0.00		0.0490	0.242	

GM 1/26/2018

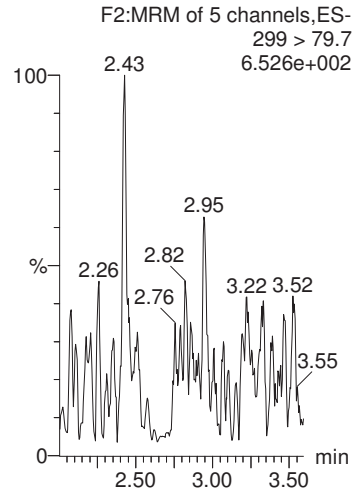
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-20.qld

Last Altered: Friday, January 26, 2018 14:26:30 Pacific Standard Time
Printed: Friday, January 26, 2018 14:26:54 Pacific Standard Time

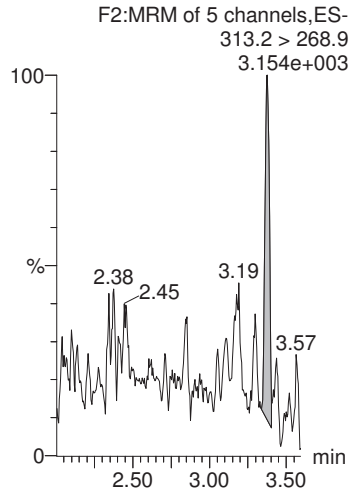
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_20, Date: 25-Jan-2018, Time: 19:16:58, ID: 1800085-02 IR54-PSW-VL101D-17D 0.24722, Description: IR54-PSW-VL101D-17D

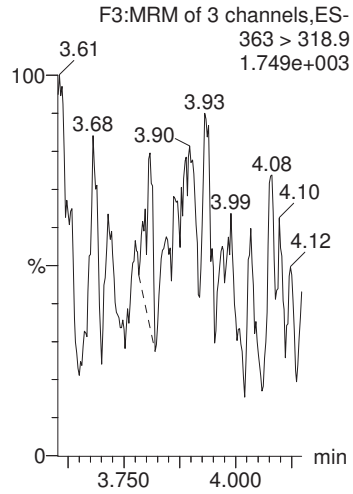
PFBS



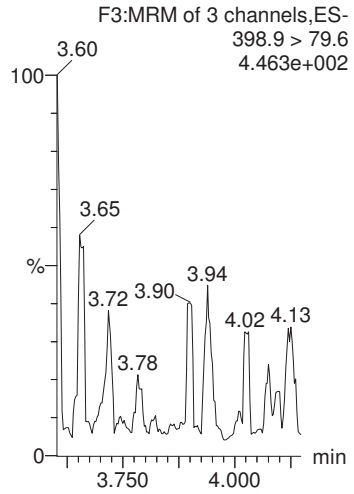
PFHxA



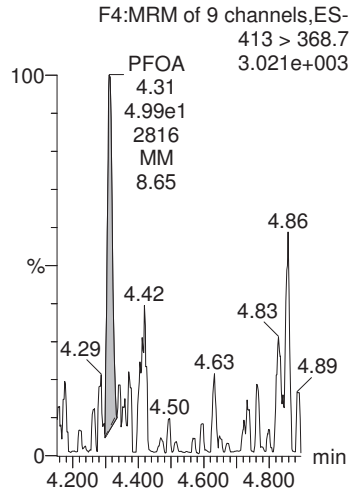
PFHpA



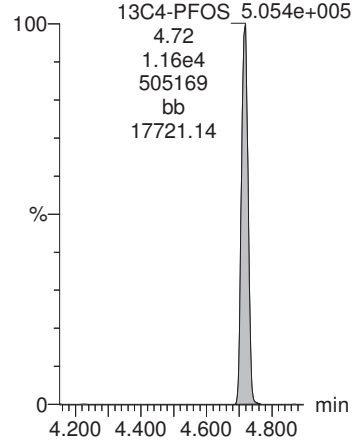
PFHxS



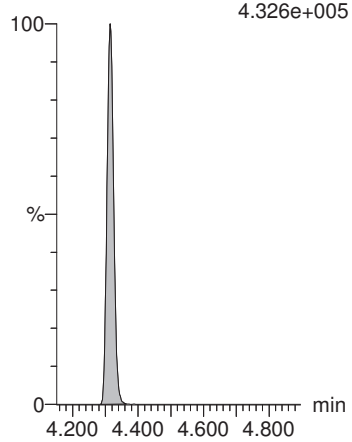
PFOA



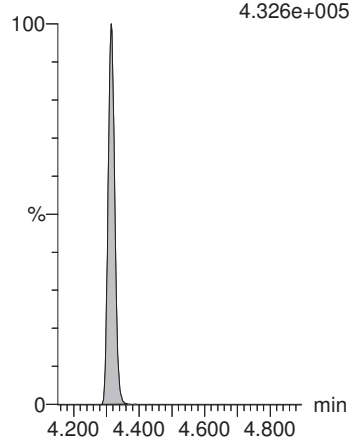
13C4-PFOS



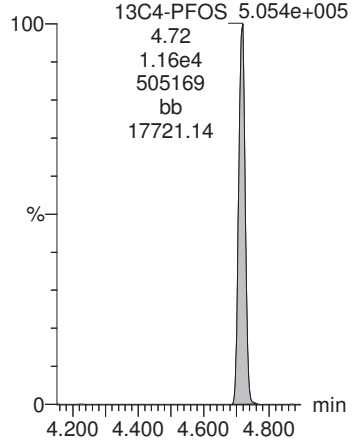
13C2-PFOA



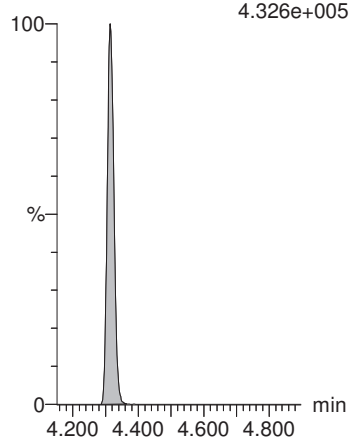
13C2-PFOA



13C4-PFOS



13C2-PFOA



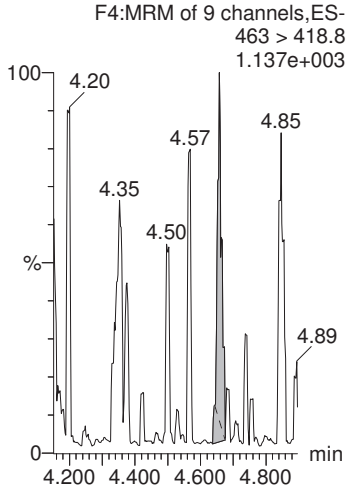
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-20.qld

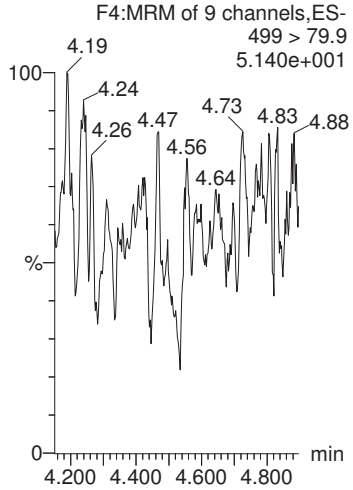
Last Altered: Friday, January 26, 2018 14:26:30 Pacific Standard Time
Printed: Friday, January 26, 2018 14:26:54 Pacific Standard Time

Name: 180125G3_20, Date: 25-Jan-2018, Time: 19:16:58, ID: 1800085-02 IR54-PSW-VL101D-17D 0.24722, Description: IR54-PSW-VL101D-17D

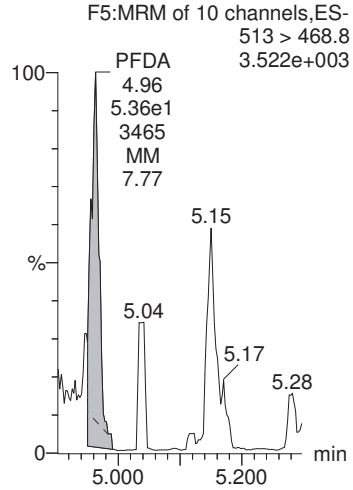
PFNA



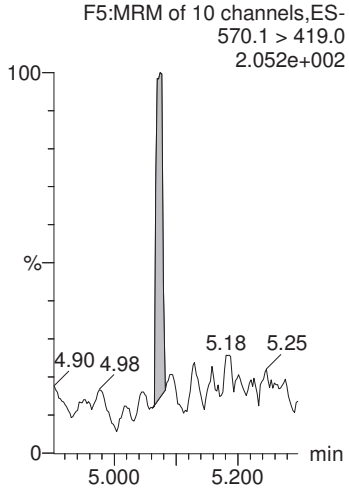
PFOS



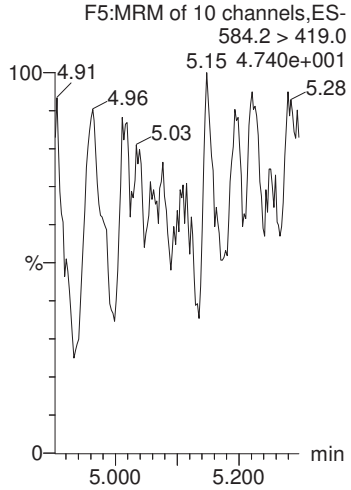
PFDA



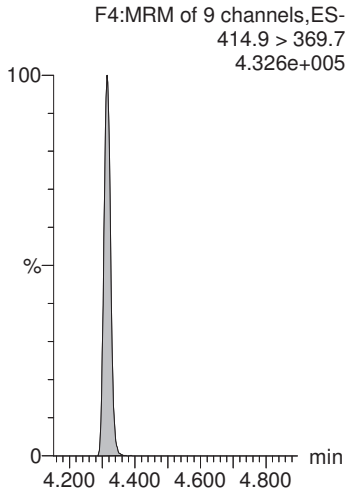
N-MeFOSAA



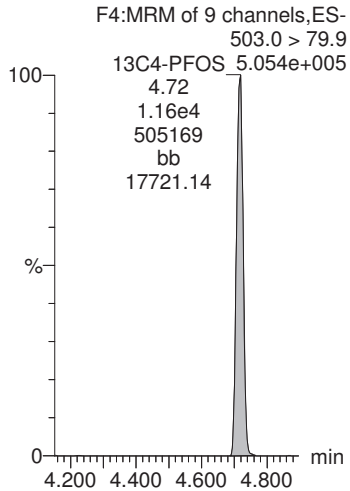
N-EtFOSAA



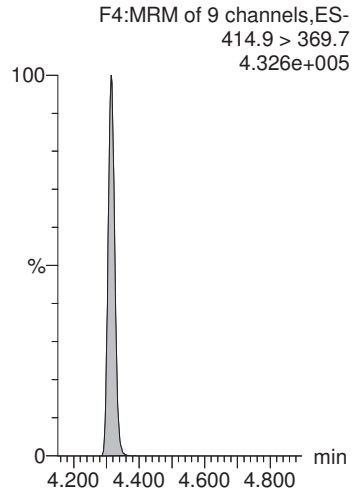
13C2-PFOA



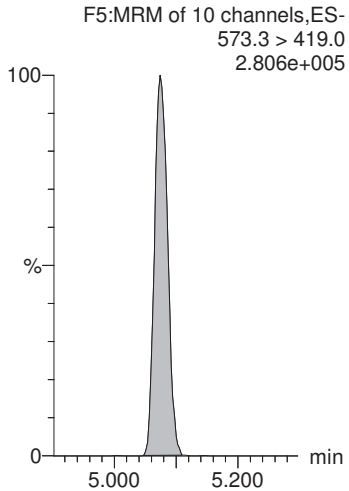
13C4-PFOS



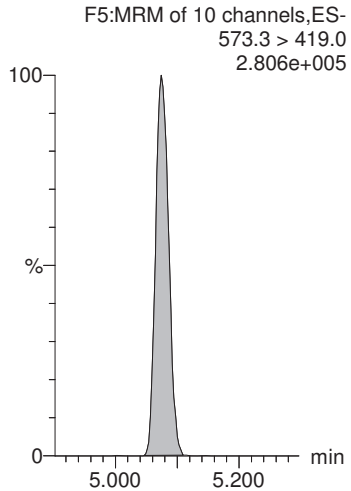
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

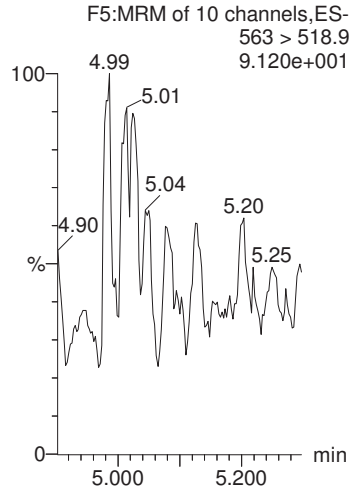
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-20.qld

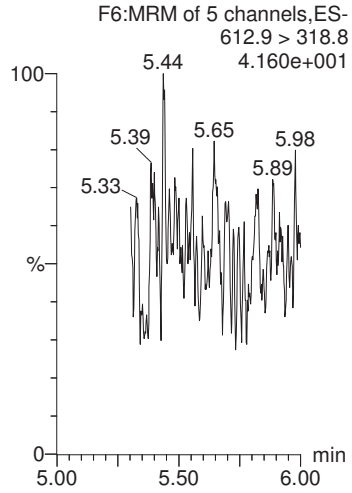
Last Altered: Friday, January 26, 2018 14:26:30 Pacific Standard Time
Printed: Friday, January 26, 2018 14:26:54 Pacific Standard Time

Name: 180125G3_20, Date: 25-Jan-2018, Time: 19:16:58, ID: 1800085-02 IR54-PSW-VL101D-17D 0.24722, Description: IR54-PSW-VL101D-17D

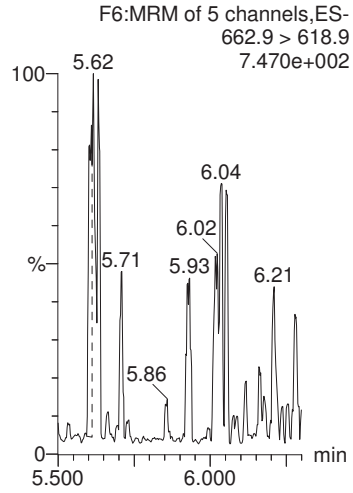
PFUnA



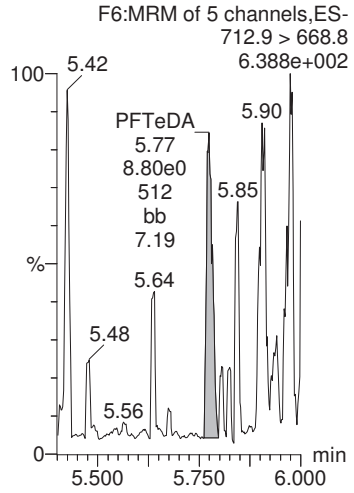
PFDoA



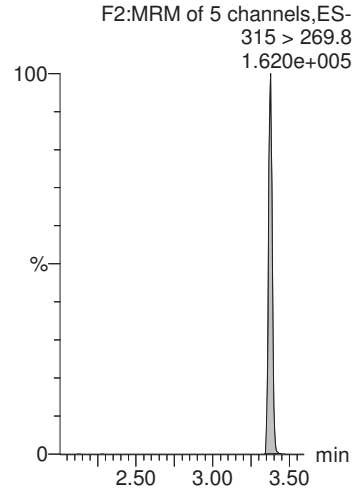
PFTrDA



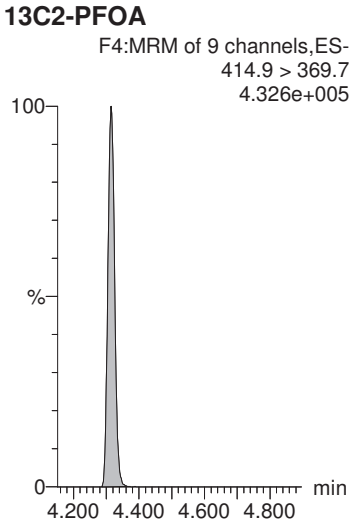
PFTeDA



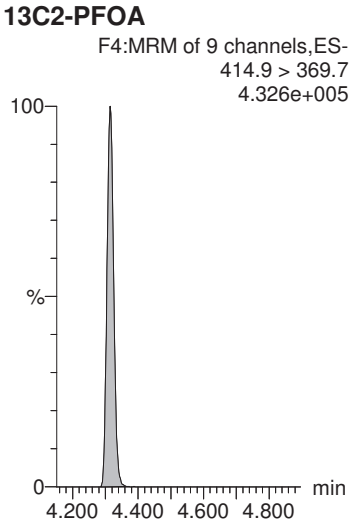
13C2-PFHxA



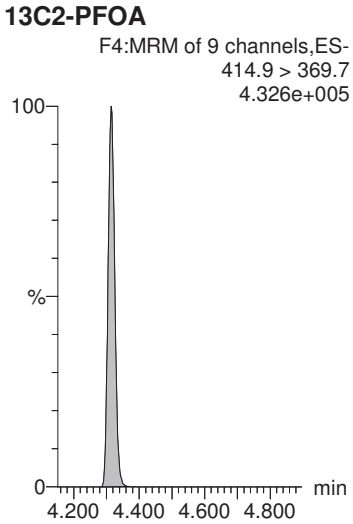
13C2-PFOA



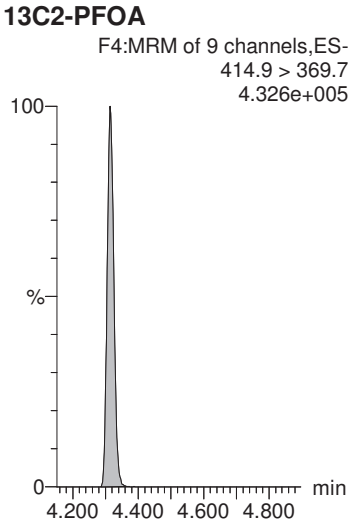
13C2-PFOA



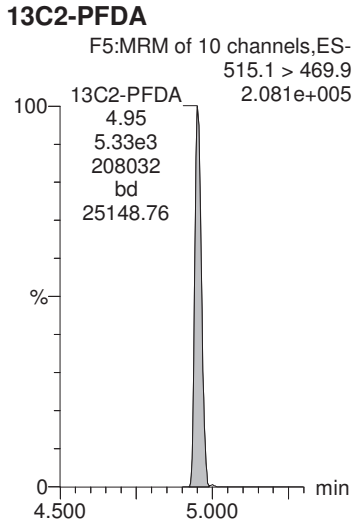
13C2-PFOA



13C2-PFOA



13C2-PFDA



GM 1/26/2018

Vista Analytical Laboratory

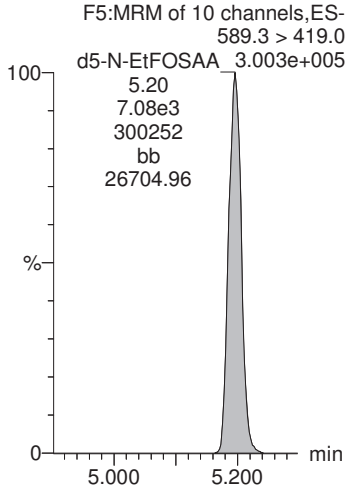
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-20.qld

Last Altered: Friday, January 26, 2018 14:26:30 Pacific Standard Time
Printed: Friday, January 26, 2018 14:26:54 Pacific Standard Time

Name: 180125G3_20, Date: 25-Jan-2018, Time: 19:16:58, ID: 1800085-02 IR54-PSW-VL101D-17D 0.24722, Description: IR54-PSW-VL101D-17D

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-21.qld

Last Altered: Friday, January 26, 2018 14:30:13 Pacific Standard Time
Printed: Friday, January 26, 2018 14:30:42 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_21, Date: 25-Jan-2018, Time: 19:29:23, ID: 1800085-03 IR54-PSW-FB-17D 0.25105, Description: IR54-PSW-FB-17D

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7		1.07e4	0.2511		3.02				
2	2	PFHxA	313.2 > 268.9	8.51e1	9.55e3	0.2511		3.37	3.38	0.0891	1.264	
3	3	PFHpA	363 > 318.9	1.22e1	9.55e3	0.2511		3.88	3.89	0.0128	0.063	
4	4	PFHxS	398.9 > 79.6	2.19e0	1.07e4	0.2511		4.02	4.02	0.00587	0.027	
5	5	PFOA	413 > 368.7	3.61e1	9.55e3	0.2511		4.32	4.32	0.0378	0.184	
6	6	PFNA	463 > 418.8		9.55e3	0.2511		4.66				
7	7	PFOS	499 >79.9	2.53e0	1.07e4	0.2511		4.72	4.71	0.00679	0.025	
8	8	PFDA	513 > 468.8	1.04e2	9.55e3	0.2511		4.99	4.95	0.109	0.483	
9	9	N-MeFOSAA	570.1 > 419.0		6.98e3	0.2511		5.01				
10	10	N-EtFOSAA	584.2 >419.0		6.98e3	0.2511		5.19				
11	11	PFDoA	612.9 > 318.8	7.99e-1	9.55e3	0.2511		5.35	5.42	0.000837	0.021	
12	12	PFUnA	563 > 518.9		9.55e3	0.2511		5.15				
13	13	PFTrDA	662.9 > 618.9		9.55e3	0.2511		5.68				
14	14	PFTeDA	712.9 > 668.8		9.55e3	0.2511		5.85				
15	15	13C2-PFHxA	315 > 269.8	4.80e3	9.55e3	0.2511	0.486	3.46	3.38	5.03	41.210	103.5
16	16	13C2-PFDA	515.1 > 469.9	5.57e3	9.55e3	0.2511	0.675	4.92	4.95	5.83	34.413	86.4
17	17	d5-N-EtFOSAA	589.3 > 419.0	6.58e3	6.98e3	0.2511	1.076	5.07	5.19	37.7	139.543	87.6
18	18	13C2-PFOA	414.9 > 369.7	9.55e3	9.55e3	0.2511	1.000	4.31	4.32	10.0	39.833	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.07e4	1.07e4	0.2511	1.000	4.81	4.72	28.7	114.320	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	6.98e3	6.98e3	0.2511	1.000	5.16	5.07	40.0	159.331	100.0
21	23	Total PFOA+PFOS	413 > 368.7,4...	3.86e1		0.2511	0.934	0.00		0.0446	0.209	

GM 1/26/2018

Vista Analytical Laboratory

Rev'd: MM 1/26/18

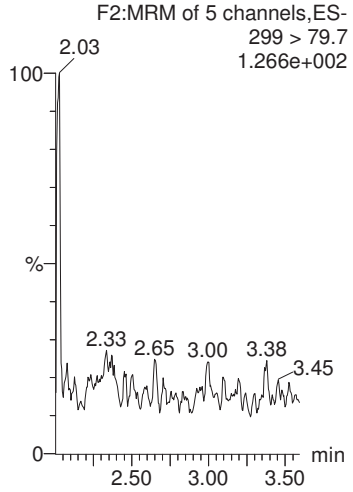
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-21.qld

Last Altered: Friday, January 26, 2018 14:30:13 Pacific Standard Time
Printed: Friday, January 26, 2018 14:30:42 Pacific Standard Time

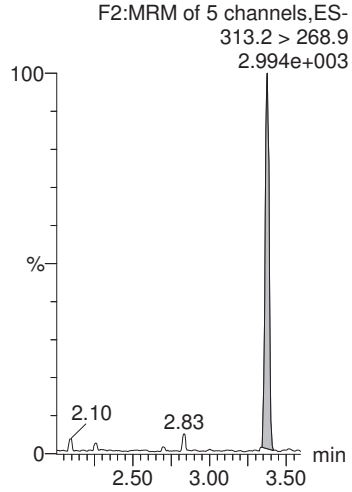
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_21, Date: 25-Jan-2018, Time: 19:29:23, ID: 1800085-03 IR54-PSW-FB-17D 0.25105, Description: IR54-PSW-FB-17D

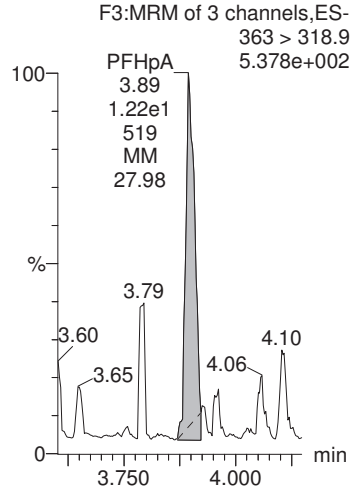
PFBS



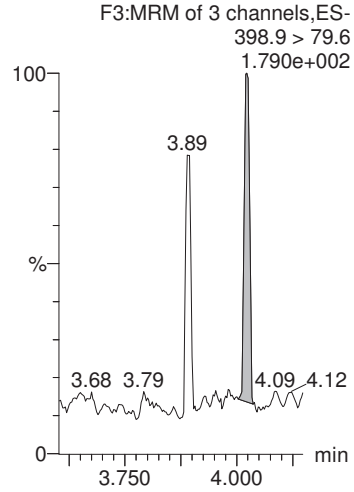
PFHxA



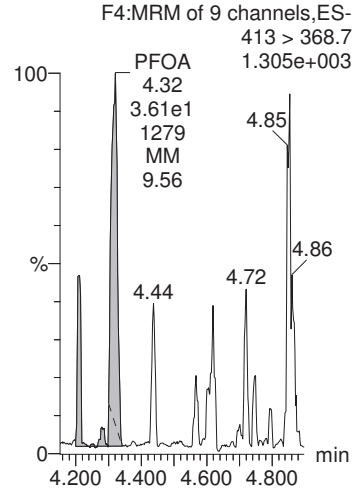
PFHpA



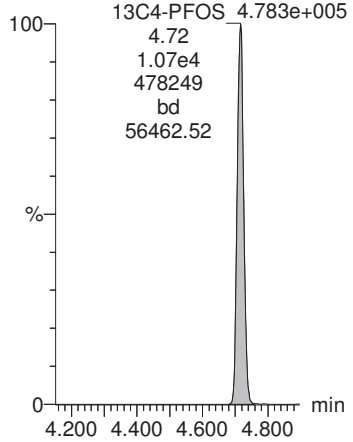
PFHxS



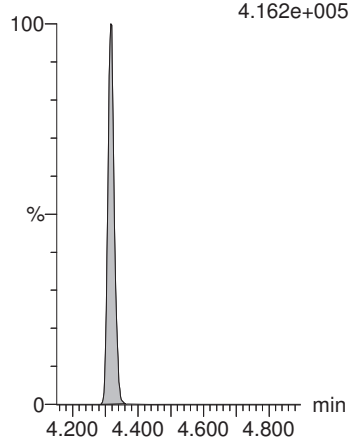
PFOA



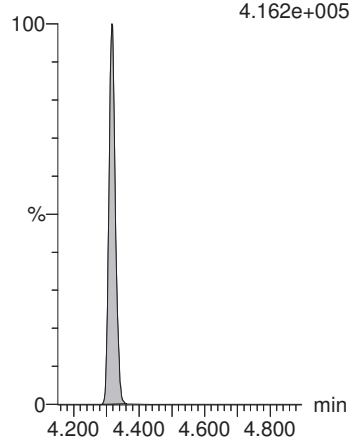
13C4-PFOS



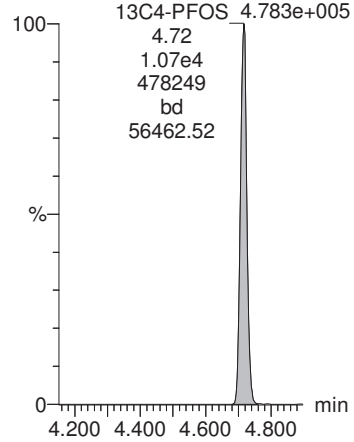
13C2-PFOA



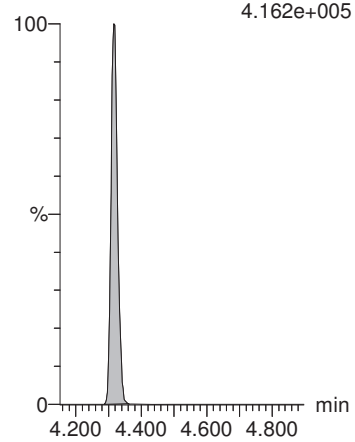
13C2-PFOA



13C4-PFOS



13C2-PFOA



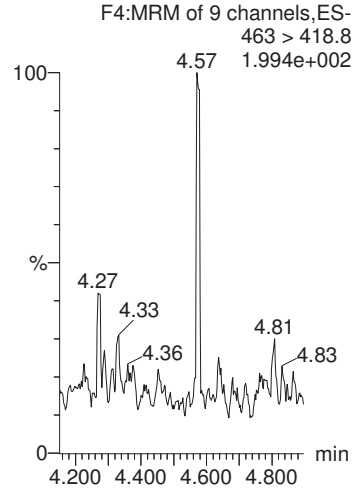
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-21.qld

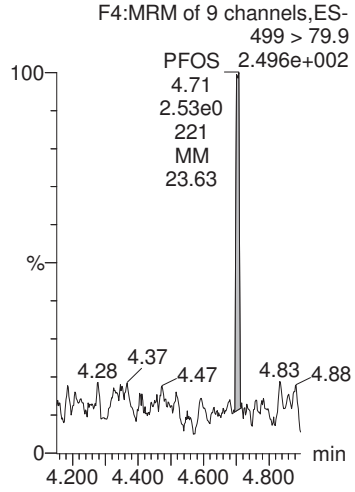
Last Altered: Friday, January 26, 2018 14:30:13 Pacific Standard Time
Printed: Friday, January 26, 2018 14:30:42 Pacific Standard Time

Name: 180125G3_21, Date: 25-Jan-2018, Time: 19:29:23, ID: 1800085-03 IR54-PSW-FB-17D 0.25105, Description: IR54-PSW-FB-17D

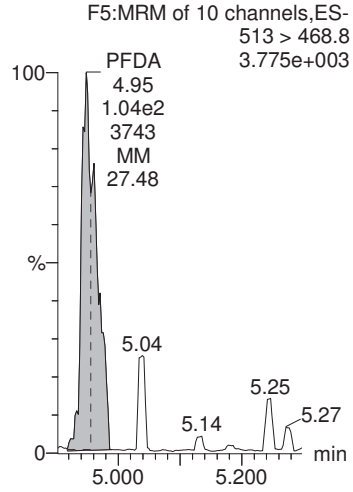
PFNA



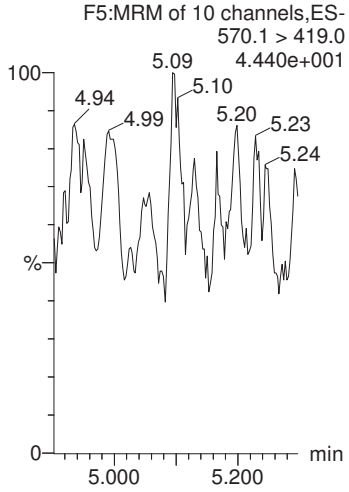
PFOS



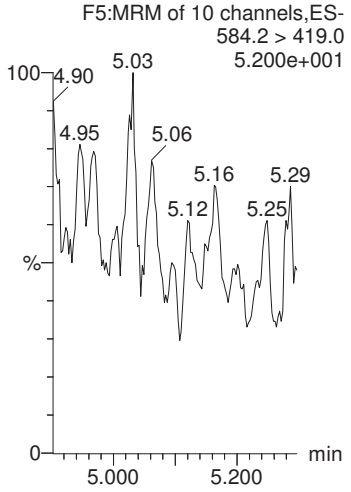
PFDA



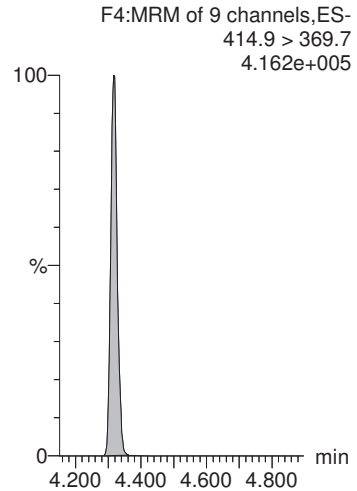
N-MeFOSAA



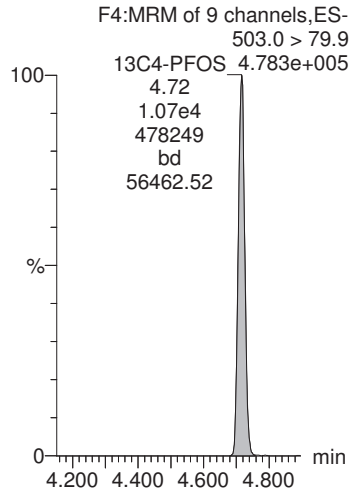
N-EtFOSAA



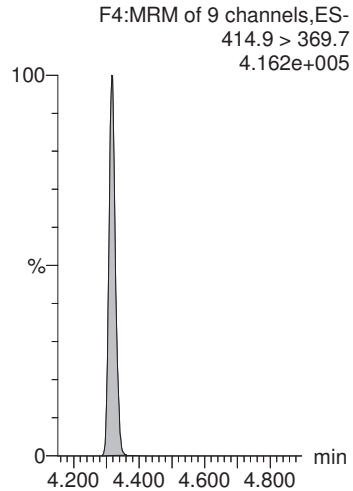
13C2-PFOA



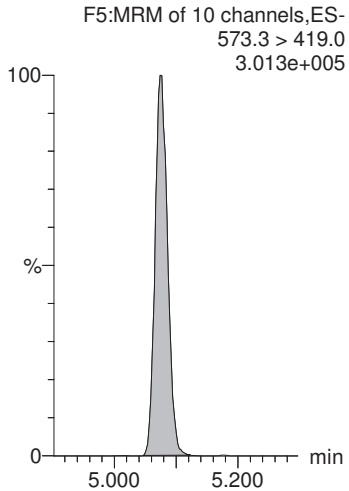
13C4-PFOS



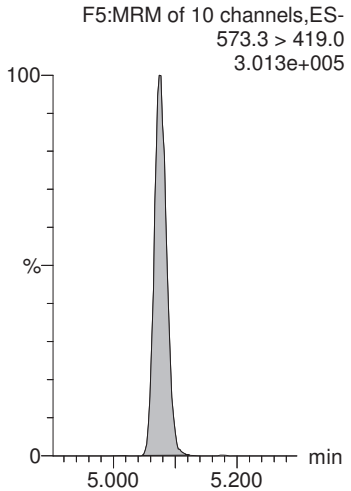
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



GM 1/26/2018

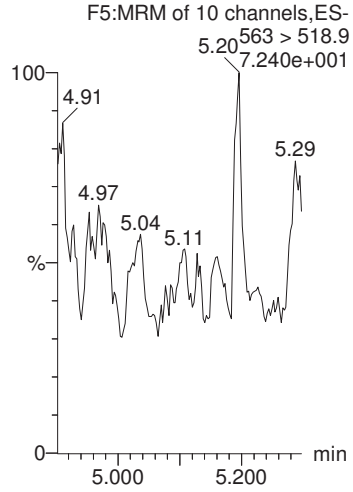
Rev'd: MM 1/26/18

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-21.qld

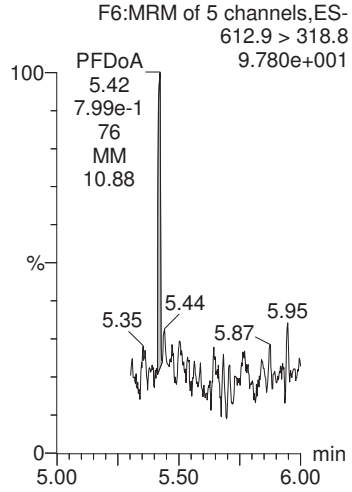
Last Altered: Friday, January 26, 2018 14:30:13 Pacific Standard Time
Printed: Friday, January 26, 2018 14:30:42 Pacific Standard Time

Name: 180125G3_21, Date: 25-Jan-2018, Time: 19:29:23, ID: 1800085-03 IR54-PSW-FB-17D 0.25105, Description: IR54-PSW-FB-17D

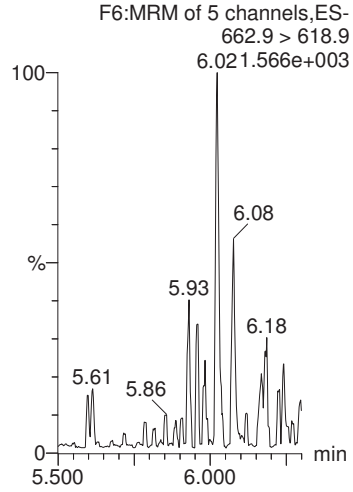
PFUnA



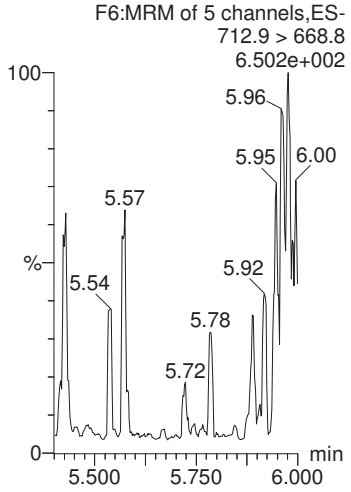
PFDoA



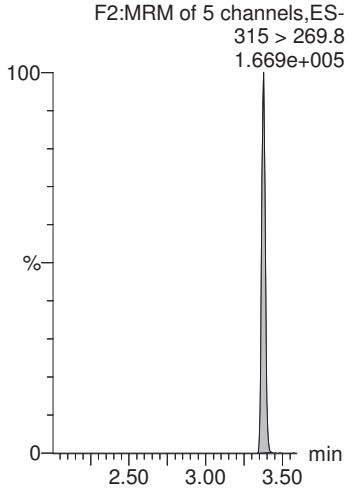
PFTrDA



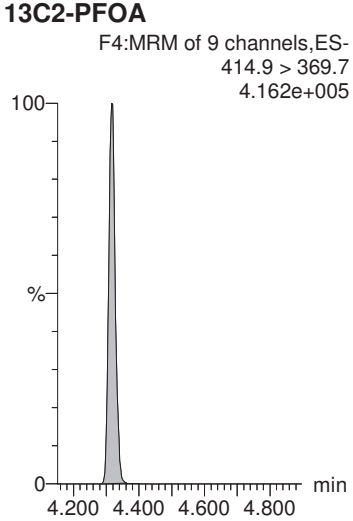
PFTeDA



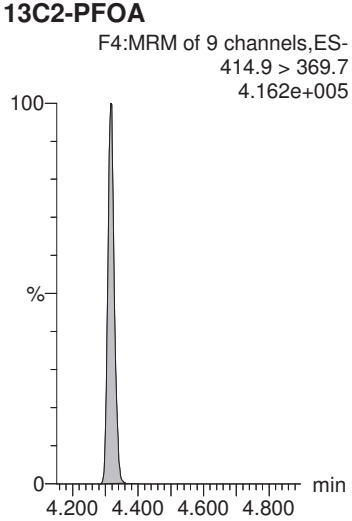
13C2-PFHxA



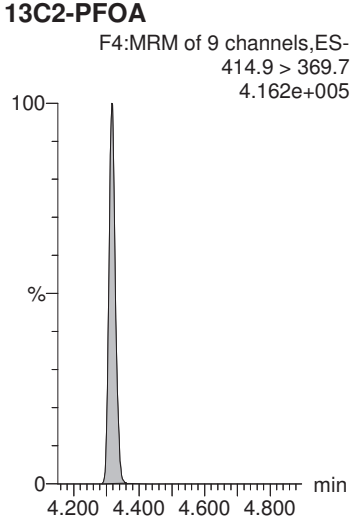
13C2-PFOA



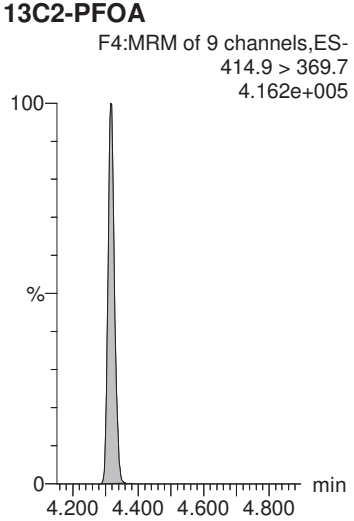
13C2-PFOA



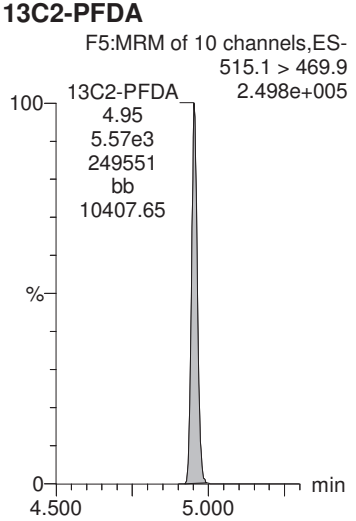
13C2-PFOA



13C2-PFOA



13C2-PFDA



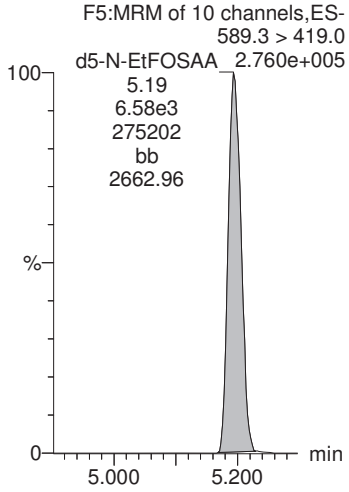
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-21.qld

Last Altered: Friday, January 26, 2018 14:30:13 Pacific Standard Time
Printed: Friday, January 26, 2018 14:30:42 Pacific Standard Time

Name: 180125G3_21, Date: 25-Jan-2018, Time: 19:29:23, ID: 1800085-03 IR54-PSW-FB-17D 0.25105, Description: IR54-PSW-FB-17D

d5-N-EtFOSAA



GM 1/26/2018

INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

IS Area

Ical

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	10	4.32	10184.87	10184.87	7033.69	144.80
3	IPA	180118G2_	Analyte	10				7033.69	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_	Analyte	10	4.32	8719.07	8719.07	7033.69	123.96
5	1800009-01 REEPDW078FRB 0.26054	180118G2_	Analyte	10	4.31	10740.5	10740.5	7033.69	152.70
6	1800007-05 @5XREEPDW082 0.25581	180118G2_	Analyte	10	4.32	1698.415	1698.415	7033.69	24.15
7	1800007-07 @5X REEPDW083 0.25486	180118G2_	Analyte	10	4.31	1915.678	1915.678	7033.69	27.24
8	1800016-03 @5X REEPDW086 0.25471	180118G2_	Analyte	10	4.31	4778.652	4778.652	7033.69	67.94
9	1800016-03 REEPDW086 0.25471	180118G2_	Analyte	10	4.31	20040.97	20040.97	7033.69	284.93
10	IPA	180118G2_	Analyte	10				7033.69	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	8440.001	8440.001	7033.69	119.99
12	B8A0083-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	9261.266	9261.266	7033.69	131.67
13	B8A0089-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	8608.001	8608.001	7033.69	122.38
14	B8A0066-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8103.479	8103.479	7033.69	115.21
15	B8A0066-MS1 LFSM 0.27048	180118G2_	Analyte	10	4.31	6971.322	6971.322	7033.69	99.11
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_	Analyte	10	4.31	6060.324	6060.324	7033.69	86.16
17	B8A0083-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8478.851	8478.851	7033.69	120.55
18	B8A0083-MS1 LFSM 0.24055	180118G2_	Analyte	10	4.31	9105.205	9105.205	7033.69	129.45
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_	Analyte	10	4.31	8721.891	8721.891	7033.69	124.00
20	B8A0089-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8518.26	8518.26	7033.69	121.11
21	B8A0089-MS1 LFSM 0.24449	180118G2_	Analyte	10	4.31	8707.365	8707.365	7033.69	123.80
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_	Analyte	10	4.31	8411.189	8411.189	7033.69	119.58
23	1800043-01 REEPDW094 0.27915	180118G2_	Analyte	10	4.32	6045.777	6045.777	7033.69	85.95
24	1800043-02 REEPDW095 0.27047	180118G2_	Analyte	10	4.31	9513.335	9513.335	7033.69	135.25
25	1800043-03 REEPDW096 0.28406	180118G2_	Analyte	10	4.31	8342.285	8342.285	7033.69	118.60
26	1800043-04 REEPDW097 0.26571	180118G2_	Analyte	10	4.32	9285.538	9285.538	7033.69	132.02
27	IPA	180118G2_	Analyte	10				7033.69	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	10	4.31	9600.221	9600.221	7033.69	136.49

GM 1/24/2018

29	IPA	180118G2_	Analyte	10	4.32	5.897	5.897	7033.69	0.08
30	1800043-05 REEPDW098 0.27228	180118G2_	Analyte	10	4.31	9276.619	9276.619	7033.69	131.89
31	1800043-06 REEPDW099 0.26823	180118G2_	Analyte	10	4.31	9043.716	9043.716	7033.69	128.58
32	1800043-07 REEPDW100 0.28558	180118G2_	Analyte	10	4.31	6460.694	6460.694	7033.69	91.85
33	1800043-08 REEPDW509 0.27456	180118G2_	Analyte	10	4.32	6855.057	6855.057	7033.69	97.46
34	1800043-09 REEPDW101 0.28336	180118G2_	Analyte	10	4.31	8430.472	8430.472	7033.69	119.86
35	1800043-10 REEPDW102 0.26529	180118G2_	Analyte	10	4.31	8711.074	8711.074	7033.69	123.85
36	1800043-11 REEPDW103 0.26168	180118G2_	Analyte	10	4.32	9711.13	9711.13	7033.69	138.07
37	1800043-12 REEPDW104 0.27166	180118G2_	Analyte	10	4.31	8977.039	8977.039	7033.69	127.63
38	1800043-13 REEPDW105 0.26297	180118G2_	Analyte	10	4.32	9082.643	9082.643	7033.69	129.13
39	1800043-14 REEPDW106 0.26776	180118G2_	Analyte	10	4.32	9151.533	9151.533	7033.69	130.11
40	IPA	180118G2_	Analyte	10				7033.69	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	10	4.32	9041.63	9041.63	7033.69	128.55
42	IPA	180118G2_	Analyte	10				7033.69	0.00
43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_	Analyte	10	4.32	9515.88	9515.88	7033.69	135.29
44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_	Analyte	10	4.31	9092.011	9092.011	7033.69	129.26
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_	Analyte	10	4.31	10295.49	10295.49	7033.69	146.37
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_	Analyte	10	4.31	9064.319	9064.319	7033.69	128.87
47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_	Analyte	10	4.31	8751.378	8751.378	7033.69	124.42
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_	Analyte	10	4.32	8768.734	8768.734	7033.69	124.67
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_	Analyte	10	4.32	8632.391	8632.391	7033.69	122.73
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_	Analyte	10	4.31	9084.429	9084.429	7033.69	129.16
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_	Analyte	10	4.31	8528.555	8528.555	7033.69	121.25
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_	Analyte	10	4.32	8768.658	8768.658	7033.69	124.67
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_	Analyte	10	4.31	8111.066	8111.066	7033.69	115.32
54	1800016-04 REEPDW087 0.26892	180118G2_	Analyte	10	4.32	9894.182	9894.182	7033.69	140.67
55	IPA	180118G2_	Analyte	10				7033.69	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_	Standard	10	4.32	10403.85	10403.85	7033.69	147.91

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
2 ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	28.7	4.72	12329.75	12329.75	8901.85	138.51
3 IPA	180118G2_	Analyte	28.7				8901.85	0.00

GM 1/24/2018

4	1800007-06 REEPDW084 0.25931	180118G2_ Analyte	28.7	4.73	10647.31	10647.31	8901.85	119.61
5	1800009-01 REEPDW078FRB 0.26054	180118G2_ Analyte	28.7	4.72	13771.77	13771.77	8901.85	154.71
6	1800007-05 @5XREEPDW082 0.25581	180118G2_ Analyte	28.7	4.72	2182.178	2182.178	8901.85	24.51
7	1800007-07 @5X REEPDW083 0.25486	180118G2_ Analyte	28.7	4.72	2505.163	2505.163	8901.85	28.14
8	1800016-03 @5X REEPDW086 0.25471	180118G2_ Analyte	28.7	4.72	4936.765	4936.765	8901.85	55.46
9	1800016-03 REEPDW086 0.25471	180118G2_ Analyte	28.7	4.72	18592.65	18592.65	8901.85	208.86
10	IPA	180118G2_ Analyte	28.7				8901.85	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_ Analyte	28.7	4.72	9378.711	9378.711	8901.85	105.36
12	B8A0083-BLK1 LRB 0.25	180118G2_ Analyte	28.7	4.72	9799.598	9799.598	8901.85	110.08
13	B8A0089-BLK1 LRB 0.25	180118G2_ Analyte	28.7	4.72	10526.9	10526.9	8901.85	118.26
14	B8A0066-BS1 LFB 0.25	180118G2_ Analyte	28.7	4.72	10108.33	10108.33	8901.85	113.55
15	B8A0066-MS1 LFSM 0.27048	180118G2_ Analyte	28.7	4.72	10482.22	10482.22	8901.85	117.75
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_ Analyte	28.7	4.72	9779.064	9779.064	8901.85	109.85
17	B8A0083-BS1 LFB 0.25	180118G2_ Analyte	28.7	4.72	9102.559	9102.559	8901.85	102.25
18	B8A0083-MS1 LFSM 0.24055	180118G2_ Analyte	28.7	4.72	10099.21	10099.21	8901.85	113.45
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_ Analyte	28.7	4.73	9550.013	9550.013	8901.85	107.28
20	B8A0089-BS1 LFB 0.25	180118G2_ Analyte	28.7	4.72	8620.463	8620.463	8901.85	96.84
21	B8A0089-MS1 LFSM 0.24449	180118G2_ Analyte	28.7	4.73	9695.756	9695.756	8901.85	108.92
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_ Analyte	28.7	4.72	8860.526	8860.526	8901.85	99.54
23	1800043-01 REEPDW094 0.27915	180118G2_ Analyte	28.7	4.72	11277.63	11277.63	8901.85	126.69
24	1800043-02 REEPDW095 0.27047	180118G2_ Analyte	28.7	4.73	10702.65	10702.65	8901.85	120.23
25	1800043-03 REEPDW096 0.28406	180118G2_ Analyte	28.7	4.72	10603.99	10603.99	8901.85	119.12
26	1800043-04 REEPDW097 0.26571	180118G2_ Analyte	28.7	4.73	10651.17	10651.17	8901.85	119.65
27	IPA	180118G2_ Analyte	28.7				8901.85	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_ Standard	28.7	4.72	10796.66	10796.66	8901.85	121.29
29	IPA	180118G2_ Analyte	28.7				8901.85	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_ Analyte	28.7	4.72	10369.46	10369.46	8901.85	116.49
31	1800043-06 REEPDW099 0.26823	180118G2_ Analyte	28.7	4.72	10226.41	10226.41	8901.85	114.88
32	1800043-07 REEPDW100 0.28558	180118G2_ Analyte	28.7	4.72	9237.149	9237.149	8901.85	103.77
33	1800043-08 REEPDW509 0.27456	180118G2_ Analyte	28.7	4.72	9863.241	9863.241	8901.85	110.80
34	1800043-09 REEPDW101 0.28336	180118G2_ Analyte	28.7	4.72	8393.599	8393.599	8901.85	94.29
35	1800043-10 REEPDW102 0.26529	180118G2_ Analyte	28.7	4.73	9853.316	9853.316	8901.85	110.69
36	1800043-11 REEPDW103 0.26168	180118G2_ Analyte	28.7	4.73	9983.317	9983.317	8901.85	112.15
37	1800043-12 REEPDW104 0.27166	180118G2_ Analyte	28.7	4.72	10193.21	10193.21	8901.85	114.51

GM 1/24/2018

38	1800043-13 REEPDW105 0.26297	180118G2_	Analyte	28.7	4.73	9576.133	9576.133	8901.85	107.57
39	1800043-14 REEPDW106 0.26776	180118G2_	Analyte	28.7	4.73	9837.97	9837.97	8901.85	110.52
40	IPA	180118G2_	Analyte	28.7				8901.85	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	28.7	4.72	9592.067	9592.067	8901.85	107.75
42	IPA	180118G2_	Analyte	28.7				8901.85	0.00
43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_	Analyte	28.7	4.73	10825.92	10825.92	8901.85	121.61
44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_	Analyte	28.7	4.72	10483.76	10483.76	8901.85	117.77
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_	Analyte	28.7	4.72	11023.11	11023.11	8901.85	123.83
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_	Analyte	28.7	4.72	10127.07	10127.07	8901.85	113.76
47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_	Analyte	28.7	4.72	10858.4	10858.4	8901.85	121.98
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_	Analyte	28.7	4.73	9844.716	9844.716	8901.85	110.59
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_	Analyte	28.7	4.72	9780.863	9780.863	8901.85	109.87
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_	Analyte	28.7	4.72	9202.914	9202.914	8901.85	103.38
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_	Analyte	28.7	4.73	8751.128	8751.128	8901.85	98.31
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_	Analyte	28.7	4.73	9279.875	9279.875	8901.85	104.25
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_	Analyte	28.7	4.72	8745.02	8745.02	8901.85	98.24
54	1800016-04 REEPDW087 0.26892	180118G2_	Analyte	28.7	4.73	11351.55	11351.55	8901.85	127.52
55	IPA	180118G2_	Analyte	28.7				8901.85	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_	Standard	28.7	4.73	10601.19	10601.19	8901.85	119.09

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	40	5.08	7050.848	7050.848	4828.68	146.02
3	IPA	180118G2_	Analyte	40				4828.68	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_	Analyte	40	5.08	6589.457	6589.457	4828.68	136.46
5	1800009-01 REEPDW078FRB 0.26054	180118G2_	Analyte	40	5.08	7758.009	7758.009	4828.68	160.67
6	1800007-05 @5XREEPDW082 0.25581	180118G2_	Analyte	40	5.08	1068.297	1068.297	4828.68	22.12
7	1800007-07 @5X REEPDW083 0.25486	180118G2_	Analyte	40	5.08	1207.651	1207.651	4828.68	25.01
8	1800016-03 @5X REEPDW086 0.25471	180118G2_	Analyte	40	5.08	3557.493	3557.493	4828.68	73.67
9	1800016-03 REEPDW086 0.25471	180118G2_	Analyte	40	5.08	16816.49	16816.49	4828.68	348.26
10	IPA	180118G2_	Analyte	40				4828.68	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_	Analyte	40	5.08	5705.455	5705.455	4828.68	118.16
12	B8A0083-BLK1 LRB 0.25	180118G2_	Analyte	40	5.08	5117.452	5117.452	4828.68	105.98

GM 1/24/2018

13	B8A0089-BLK1 LRB 0.25	180118G2_ Analyte	40	5.08	6271.847	6271.847	4828.68	129.89
14	B8A0066-BS1 LFB 0.25	180118G2_ Analyte	40	5.08	5327.652	5327.652	4828.68	110.33
15	B8A0066-MS1 LFSM 0.27048	180118G2_ Analyte	40	5.08	6020.557	6020.557	4828.68	124.68
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_ Analyte	40	5.08	5473.931	5473.931	4828.68	113.36
17	B8A0083-BS1 LFB 0.25	180118G2_ Analyte	40	5.08	5523.66	5523.66	4828.68	114.39
18	B8A0083-MS1 LFSM 0.24055	180118G2_ Analyte	40	5.08	6091.664	6091.664	4828.68	126.16
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_ Analyte	40	5.08	5465.365	5465.365	4828.68	113.19
20	B8A0089-BS1 LFB 0.25	180118G2_ Analyte	40	5.08	5411.224	5411.224	4828.68	112.06
21	B8A0089-MS1 LFSM 0.24449	180118G2_ Analyte	40	5.09	4961.867	4961.867	4828.68	102.76
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_ Analyte	40	5.09	4948.025	4948.025	4828.68	102.47
23	1800043-01 REEPDW094 0.27915	180118G2_ Analyte	40	5.08	6401.689	6401.689	4828.68	132.58
24	1800043-02 REEPDW095 0.27047	180118G2_ Analyte	40	5.08	5817.382	5817.382	4828.68	120.48
25	1800043-03 REEPDW096 0.28406	180118G2_ Analyte	40	5.08	5236.629	5236.629	4828.68	108.45
26	1800043-04 REEPDW097 0.26571	180118G2_ Analyte	40	5.08	6101.565	6101.565	4828.68	126.36
27	IPA	180118G2_ Analyte	40				4828.68	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_ Standard	40	5.08	5140.72	5140.72	4828.68	106.46
29	IPA	180118G2_ Analyte	40				4828.68	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_ Analyte	40	5.08	5570.485	5570.485	4828.68	115.36
31	1800043-06 REEPDW099 0.26823	180118G2_ Analyte	40	5.08	5796.455	5796.455	4828.68	120.04
32	1800043-07 REEPDW100 0.28558	180118G2_ Analyte	40	5.08	6031.292	6031.292	4828.68	124.91
33	1800043-08 REEPDW509 0.27456	180118G2_ Analyte	40	5.08	6037.827	6037.827	4828.68	125.04
34	1800043-09 REEPDW101 0.28336	180118G2_ Analyte	40	5.08	6115.861	6115.861	4828.68	126.66
35	1800043-10 REEPDW102 0.26529	180118G2_ Analyte	40	5.08	5956.016	5956.016	4828.68	123.35
36	1800043-11 REEPDW103 0.26168	180118G2_ Analyte	40	5.08	5633.1	5633.1	4828.68	116.66
37	1800043-12 REEPDW104 0.27166	180118G2_ Analyte	40	5.08	5608.666	5608.666	4828.68	116.15
38	1800043-13 REEPDW105 0.26297	180118G2_ Analyte	40	5.08	6094.922	6094.922	4828.68	126.22
39	1800043-14 REEPDW106 0.26776	180118G2_ Analyte	40	5.09	5643.012	5643.012	4828.68	116.86
40	IPA	180118G2_ Analyte	40				4828.68	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_ Standard	40	5.09	6271.517	6271.517	4828.68	129.88
42	IPA	180118G2_ Analyte	40				4828.68	0.00
43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_ Analyte	40	5.09	5780.859	5780.859	4828.68	119.72
44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_ Analyte	40	5.08	5565.08	5565.08	4828.68	115.25
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_ Analyte	40	5.08	6432.375	6432.375	4828.68	133.21
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_ Analyte	40	5.08	5907.788	5907.788	4828.68	122.35

GM 1/24/2018

47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_	Analyte	40	5.08	5391.522	5391.522	4828.68	111.66
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_	Analyte	40	5.08	6106.041	6106.041	4828.68	126.45
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_	Analyte	40	5.09	5788.126	5788.126	4828.68	119.87
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_	Analyte	40	5.08	5821.937	5821.937	4828.68	120.57
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_	Analyte	40	5.08	5037.459	5037.459	4828.68	104.32
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_	Analyte	40	5.08	5083.775	5083.775	4828.68	105.28
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_	Analyte	40	5.08	5081.091	5081.091	4828.68	105.23
54	1800016-04 REEPDW087 0.26892	180118G2_	Analyte	40	5.08	5592.342	5592.342	4828.68	115.82
55	IPA	180118G2_	Analyte	40				4828.68	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_	Standard	40	5.09	5232.268	5232.268	4828.68	108.36

Ccal

Compound 18: 13C2-PFOA ST18018G2-1 PFC CS-1 537 18A1203

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	10	4.32	10184.87	10184.87	10184.87	100.00
3	IPA	180118G2_	Analyte	10				10184.87	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_	Analyte	10	4.32	8719.07	8719.07	10184.87	85.61
5	1800009-01 REEPDW078FRB 0.26054	180118G2_	Analyte	10	4.31	10740.5	10740.5	10184.87	105.46
6	1800007-05 @5XREEPDW082 0.25581	180118G2_	Analyte	10	4.32	1698.415	1698.415	10184.87	16.68
7	1800007-07 @5X REEPDW083 0.25486	180118G2_	Analyte	10	4.31	1915.678	1915.678	10184.87	18.81
8	1800016-03 @5X REEPDW086 0.25471	180118G2_	Analyte	10	4.31	4778.652	4778.652	10184.87	46.92
9	1800016-03 REEPDW086 0.25471	180118G2_	Analyte	10	4.31	20040.97	20040.97	10184.87	196.77
10	IPA	180118G2_	Analyte	10				10184.87	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	8440.001	8440.001	10184.87	82.87
12	B8A0083-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	9261.266	9261.266	10184.87	90.93
13	B8A0089-BLK1 LRB 0.25	180118G2_	Analyte	10	4.31	8608.001	8608.001	10184.87	84.52
14	B8A0066-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8103.479	8103.479	10184.87	79.56
15	B8A0066-MS1 LFSM 0.27048	180118G2_	Analyte	10	4.31	6971.322	6971.322	10184.87	68.45
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_	Analyte	10	4.31	6060.324	6060.324	10184.87	59.50
17	B8A0083-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8478.851	8478.851	10184.87	83.25
18	B8A0083-MS1 LFSM 0.24055	180118G2_	Analyte	10	4.31	9105.205	9105.205	10184.87	89.40
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_	Analyte	10	4.31	8721.891	8721.891	10184.87	85.64

GM 1/24/2018

20	B8A0089-BS1 LFB 0.25	180118G2_	Analyte	10	4.31	8518.26	8518.26	10184.87	83.64
21	B8A0089-MS1 LFSM 0.24449	180118G2_	Analyte	10	4.31	8707.365	8707.365	10184.87	85.49
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_	Analyte	10	4.31	8411.189	8411.189	10184.87	82.59
23	1800043-01 REEPDW094 0.27915	180118G2_	Analyte	10	4.32	6045.777	6045.777	10184.87	59.36
24	1800043-02 REEPDW095 0.27047	180118G2_	Analyte	10	4.31	9513.335	9513.335	10184.87	93.41
25	1800043-03 REEPDW096 0.28406	180118G2_	Analyte	10	4.31	8342.285	8342.285	10184.87	81.91
26	1800043-04 REEPDW097 0.26571	180118G2_	Analyte	10	4.32	9285.538	9285.538	10184.87	91.17
27	IPA	180118G2_	Analyte	10				10184.87	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	10	4.31	9600.221	9600.221	10184.87	94.26

ST180118G2-2 PFC CS2 537 18A1206

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	10	4.31	9600.221	9600.221	9600.221	100.00
29	IPA	180118G2_	Analyte	10	4.32	5.897	5.897	9600.221	0.06
30	1800043-05 REEPDW098 0.27228	180118G2_	Analyte	10	4.31	9276.619	9276.619	9600.221	96.63
31	1800043-06 REEPDW099 0.26823	180118G2_	Analyte	10	4.31	9043.716	9043.716	9600.221	94.20
32	1800043-07 REEPDW100 0.28558	180118G2_	Analyte	10	4.31	6460.694	6460.694	9600.221	67.30
33	1800043-08 REEPDW509 0.27456	180118G2_	Analyte	10	4.32	6855.057	6855.057	9600.221	71.41
34	1800043-09 REEPDW101 0.28336	180118G2_	Analyte	10	4.31	8430.472	8430.472	9600.221	87.82
35	1800043-10 REEPDW102 0.26529	180118G2_	Analyte	10	4.31	8711.074	8711.074	9600.221	90.74
36	1800043-11 REEPDW103 0.26168	180118G2_	Analyte	10	4.32	9711.13	9711.13	9600.221	101.16
37	1800043-12 REEPDW104 0.27166	180118G2_	Analyte	10	4.31	8977.039	8977.039	9600.221	93.51
38	1800043-13 REEPDW105 0.26297	180118G2_	Analyte	10	4.32	9082.643	9082.643	9600.221	94.61
39	1800043-14 REEPDW106 0.26776	180118G2_	Analyte	10	4.32	9151.533	9151.533	9600.221	95.33
40	IPA	180118G2_	Analyte	10				9600.221	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	10	4.32	9041.63	9041.63	9600.221	94.18

ST180118G2-3 PFC CS4 537 18A1208

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	10	4.32	9041.63	9041.63	9041.63	100.00
42	IPA	180118G2_	Analyte	10				9041.63	0.00
43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_	Analyte	10	4.32	9515.88	9515.88	9041.63	105.25

GM 1/24/2018

44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_	Analyte	10	4.31	9092.011	9092.011	9041.63	100.56
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_	Analyte	10	4.31	10295.49	10295.49	9041.63	113.87
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_	Analyte	10	4.31	9064.319	9064.319	9041.63	100.25
47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_	Analyte	10	4.31	8751.378	8751.378	9041.63	96.79
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_	Analyte	10	4.32	8768.734	8768.734	9041.63	96.98
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_	Analyte	10	4.32	8632.391	8632.391	9041.63	95.47
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_	Analyte	10	4.31	9084.429	9084.429	9041.63	100.47
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_	Analyte	10	4.31	8528.555	8528.555	9041.63	94.33
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_	Analyte	10	4.32	8768.658	8768.658	9041.63	96.98
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_	Analyte	10	4.31	8111.066	8111.066	9041.63	89.71
54	1800016-04 REEPDW087 0.26892	180118G2_	Analyte	10	4.32	9894.182	9894.182	9041.63	109.43
55	IPA	180118G2_	Analyte	10				9041.63	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_	Standard	10	4.32	10403.85	10403.85	9041.63	115.07

Compound 19: 13C4-PFOS ST18018G2-1 PFC CS-1 537 18A1203

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	28.7	4.72	12329.75	12329.75	12329.75	100.00
3	IPA	180118G2_	Analyte	28.7				12329.75	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_	Analyte	28.7	4.73	10647.31	10647.31	12329.75	86.35
5	1800009-01 REEPDW078FRB 0.26054	180118G2_	Analyte	28.7	4.72	13771.77	13771.77	12329.75	111.70
6	1800007-05 @5XREEPDW082 0.25581	180118G2_	Analyte	28.7	4.72	2182.178	2182.178	12329.75	17.70
7	1800007-07 @5X REEPDW083 0.25486	180118G2_	Analyte	28.7	4.72	2505.163	2505.163	12329.75	20.32
8	1800016-03 @5X REEPDW086 0.25471	180118G2_	Analyte	28.7	4.72	4936.765	4936.765	12329.75	40.04
9	1800016-03 REEPDW086 0.25471	180118G2_	Analyte	28.7	4.72	18592.65	18592.65	12329.75	150.79
10	IPA	180118G2_	Analyte	28.7				12329.75	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_	Analyte	28.7	4.72	9378.711	9378.711	12329.75	76.07
12	B8A0083-BLK1 LRB 0.25	180118G2_	Analyte	28.7	4.72	9799.598	9799.598	12329.75	79.48
13	B8A0089-BLK1 LRB 0.25	180118G2_	Analyte	28.7	4.72	10526.9	10526.9	12329.75	85.38
14	B8A0066-BS1 LFB 0.25	180118G2_	Analyte	28.7	4.72	10108.33	10108.33	12329.75	81.98
15	B8A0066-MS1 LFSM 0.27048	180118G2_	Analyte	28.7	4.72	10482.22	10482.22	12329.75	85.02
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_	Analyte	28.7	4.72	9779.064	9779.064	12329.75	79.31
17	B8A0083-BS1 LFB 0.25	180118G2_	Analyte	28.7	4.72	9102.559	9102.559	12329.75	73.83
18	B8A0083-MS1 LFSM 0.24055	180118G2_	Analyte	28.7	4.72	10099.21	10099.21	12329.75	81.91

GM 1/24/2018

19	B8A0083-MSD1 LFSMD 0.2463	180118G2_	Analyte	28.7	4.73	9550.013	9550.013	12329.75	77.46
20	B8A0089-BS1 LFB 0.25	180118G2_	Analyte	28.7	4.72	8621.604	8621.604	12329.75	69.93
21	B8A0089-MS1 LFSM 0.24449	180118G2_	Analyte	28.7	4.73	9695.756	9695.756	12329.75	78.64
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_	Analyte	28.7	4.72	8860.526	8860.526	12329.75	71.86
23	1800043-01 REEPDW094 0.27915	180118G2_	Analyte	28.7	4.72	11277.63	11277.63	12329.75	91.47
24	1800043-02 REEPDW095 0.27047	180118G2_	Analyte	28.7	4.73	10702.65	10702.65	12329.75	86.80
25	1800043-03 REEPDW096 0.28406	180118G2_	Analyte	28.7	4.72	10603.99	10603.99	12329.75	86.00
26	1800043-04 REEPDW097 0.26571	180118G2_	Analyte	28.7	4.73	10651.17	10651.17	12329.75	86.39
27	IPA	180118G2_	Analyte	28.7				12329.75	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	28.7	4.72	10796.66	10796.66	12329.75	87.57

ST180118G2-2 PFC CS2 537 18A1206

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	28.7	4.72	10796.66	10796.66	10796.66	100.00
29	IPA	180118G2_	Analyte	28.7				10796.66	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_	Analyte	28.7	4.72	10369.46	10369.46	10796.66	96.04
31	1800043-06 REEPDW099 0.26823	180118G2_	Analyte	28.7	4.72	10226.41	10226.41	10796.66	94.72
32	1800043-07 REEPDW100 0.28558	180118G2_	Analyte	28.7	4.72	9237.149	9237.149	10796.66	85.56
33	1800043-08 REEPDW509 0.27456	180118G2_	Analyte	28.7	4.72	9863.241	9863.241	10796.66	91.35
34	1800043-09 REEPDW101 0.28336	180118G2_	Analyte	28.7	4.72	8393.599	8393.599	10796.66	77.74
35	1800043-10 REEPDW102 0.26529	180118G2_	Analyte	28.7	4.73	9853.316	9853.316	10796.66	91.26
36	1800043-11 REEPDW103 0.26168	180118G2_	Analyte	28.7	4.73	9983.317	9983.317	10796.66	92.47
37	1800043-12 REEPDW104 0.27166	180118G2_	Analyte	28.7	4.72	10193.21	10193.21	10796.66	94.41
38	1800043-13 REEPDW105 0.26297	180118G2_	Analyte	28.7	4.73	9576.133	9576.133	10796.66	88.70
39	1800043-14 REEPDW106 0.26776	180118G2_	Analyte	28.7	4.73	9837.97	9837.97	10796.66	91.12
40	IPA	180118G2_	Analyte	28.7				10796.66	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	28.7	4.72	9592.067	9592.067	10796.66	88.84

ST180118G2-2 PFC CS2 537 18A1206

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	28.7	4.72	10796.66	10796.66	10796.66	100.00
42	IPA	180118G2_	Analyte	28.7				10796.66	0.00

GM 1/24/2018

43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_	Analyte	28.7	4.73	10825.92	10825.92	10796.66	100.27
44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_	Analyte	28.7	4.72	10483.76	10483.76	10796.66	97.10
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_	Analyte	28.7	4.72	11023.11	11023.11	10796.66	102.10
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_	Analyte	28.7	4.72	10127.07	10127.07	10796.66	93.80
47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_	Analyte	28.7	4.72	10858.4	10858.4	10796.66	100.57
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_	Analyte	28.7	4.73	9844.716	9844.716	10796.66	91.18
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_	Analyte	28.7	4.72	9780.863	9780.863	10796.66	90.59
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_	Analyte	28.7	4.72	9202.914	9202.914	10796.66	85.24
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_	Analyte	28.7	4.73	8751.128	8751.128	10796.66	81.05
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_	Analyte	28.7	4.73	9279.875	9279.875	10796.66	85.95
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_	Analyte	28.7	4.72	8745.02	8745.02	10796.66	81.00
54	1800016-04 REEPDW087 0.26892	180118G2_	Analyte	28.7	4.73	11351.55	11351.55	10796.66	105.14
55	IPA	180118G2_	Analyte	28.7				10796.66	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_	Standard	28.7	4.73	10601.19	10601.19	10796.66	98.19

Compound 20: d3-N-MeFOSAA ST18018G2-1 PFC CS-1 537 18A1203

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_	Analyte	40	5.08	7050.848	7050.848	7050.848	100.00
3	IPA	180118G2_	Analyte	40				7050.848	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_	Analyte	40	5.08	6589.457	6589.457	7050.848	93.46
5	1800009-01 REEPDW078FRB 0.26054	180118G2_	Analyte	40	5.08	7758.009	7758.009	7050.848	110.0294
6	1800007-05 @5XREEPDW082 0.25581	180118G2_	Analyte	40	5.08	1068.297	1068.297	7050.848	15.15
7	1800007-07 @5X REEPDW083 0.25486	180118G2_	Analyte	40	5.08	1207.651	1207.651	7050.848	17.13
8	1800016-03 @5X REEPDW086 0.25471	180118G2_	Analyte	40	5.08	3557.493	3557.493	7050.848	50.45
9	1800016-03 REEPDW086 0.25471	180118G2_	Analyte	40	5.08	16816.49	16816.49	7050.848	238.50
10	IPA	180118G2_	Analyte	40				7050.848	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_	Analyte	40	5.08	5705.455	5705.455	7050.848	80.92
12	B8A0083-BLK1 LRB 0.25	180118G2_	Analyte	40	5.08	5117.452	5117.452	7050.848	72.58
13	B8A0089-BLK1 LRB 0.25	180118G2_	Analyte	40	5.08	6271.847	6271.847	7050.848	88.95
14	B8A0066-BS1 LFB 0.25	180118G2_	Analyte	40	5.08	5327.652	5327.652	7050.848	75.56
15	B8A0066-MS1 LFSM 0.27048	180118G2_	Analyte	40	5.08	6020.557	6020.557	7050.848	85.39
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_	Analyte	40	5.08	5473.931	5473.931	7050.848	77.64
17	B8A0083-BS1 LFB 0.25	180118G2_	Analyte	40	5.08	5523.66	5523.66	7050.848	78.34

GM 1/24/2018

18	B8A0083-MS1 LFSM 0.24055	180118G2_	Analyte	40	5.08	6091.664	6091.664	7050.848	86.40
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_	Analyte	40	5.08	5465.365	5465.365	7050.848	77.51
20	B8A0089-BS1 LFB 0.25	180118G2_	Analyte	40	5.08	5411.224	5411.224	7050.848	76.75
21	B8A0089-MS1 LFSM 0.24449	180118G2_	Analyte	40	5.09	4961.867	4961.867	7050.848	70.37
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_	Analyte	40	5.09	4948.025	4948.025	7050.848	70.18
23	1800043-01 REEPDW094 0.27915	180118G2_	Analyte	40	5.08	6401.689	6401.689	7050.848	90.79
24	1800043-02 REEPDW095 0.27047	180118G2_	Analyte	40	5.08	5817.382	5817.382	7050.848	82.51
25	1800043-03 REEPDW096 0.28406	180118G2_	Analyte	40	5.08	5236.629	5236.629	7050.848	74.27
26	1800043-04 REEPDW097 0.26571	180118G2_	Analyte	40	5.08	6101.565	6101.565	7050.848	86.54
27	IPA	180118G2_	Analyte	40				7050.848	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	40	5.08	5140.72	5140.72	7050.848	72.91

ST180118G2-2 PFC CS2 537 18A1206

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_	Standard	40	5.08	5140.72	5140.72	5140.72	100.00
29	IPA	180118G2_	Analyte	40				5140.72	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_	Analyte	40	5.08	5570.485	5570.485	5140.72	108.36
31	1800043-06 REEPDW099 0.26823	180118G2_	Analyte	40	5.08	5796.455	5796.455	5140.72	112.76
32	1800043-07 REEPDW100 0.28558	180118G2_	Analyte	40	5.08	6031.292	6031.292	5140.72	117.32
33	1800043-08 REEPDW509 0.27456	180118G2_	Analyte	40	5.08	6037.827	6037.827	5140.72	117.45
34	1800043-09 REEPDW101 0.28336	180118G2_	Analyte	40	5.08	6115.861	6115.861	5140.72	118.97
35	1800043-10 REEPDW102 0.26529	180118G2_	Analyte	40	5.08	5956.016	5956.016	5140.72	115.86
36	1800043-11 REEPDW103 0.26168	180118G2_	Analyte	40	5.08	5633.1	5633.1	5140.72	109.58
37	1800043-12 REEPDW104 0.27166	180118G2_	Analyte	40	5.08	5608.666	5608.666	5140.72	109.10
38	1800043-13 REEPDW105 0.26297	180118G2_	Analyte	40	5.08	6094.922	6094.922	5140.72	118.56
39	1800043-14 REEPDW106 0.26776	180118G2_	Analyte	40	5.09	5643.012	5643.012	5140.72	109.77
40	IPA	180118G2_	Analyte	40				5140.72	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	40	5.09	6271.517	6271.517	5140.72	122.00

ST180118G2-3 PFC CS4 537 18A1208

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_	Standard	40	5.09	6271.517	6271.517	6271.517	100.00

GM 1/24/2018

42	IPA	180118G2_Analyte	40				6271.517	0.00
43	1800080-01 CH-AT-2RW58-0118 0.25076	180118G2_Analyte	40	5.09	5780.859	5780.859	6271.517	92.18
44	1800080-02 CH-AT-2FB58-0118 0.25017	180118G2_Analyte	40	5.08	5565.08	5565.08	6271.517	88.74
45	1800080-03 CH-AT-2RW58B-0118 0.24657	180118G2_Analyte	40	5.08	6432.375	6432.375	6271.517	102.56
46	1800080-04 CH-AT-2FB58B-0118 0.25157	180118G2_Analyte	40	5.08	5907.788	5907.788	6271.517	94.20
47	1800080-05 CH-AT-2RW58C-0118 0.25535	180118G2_Analyte	40	5.08	5391.522	5391.522	6271.517	85.97
48	1800080-06 CH-AT-2FB58C-0118 0.24979	180118G2_Analyte	40	5.08	6106.041	6106.041	6271.517	97.36
49	1800080-07 CH-AT-1RW146-0118 0.24276	180118G2_Analyte	40	5.09	5788.126	5788.126	6271.517	92.29
50	1800080-08 CH-AT-1FB146-0118 0.24492	180118G2_Analyte	40	5.08	5821.937	5821.937	6271.517	92.83
51	1800085-01 IR54-PSW-VL101-17D 0.24531	180118G2_Analyte	40	5.08	5037.459	5037.459	6271.517	80.32
52	1800085-02 IR54-PSW-VL101D-17D 0.24722	180118G2_Analyte	40	5.08	5083.775	5083.775	6271.517	81.06
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_Analyte	40	5.08	5081.091	5081.091	6271.517	81.02
54	1800016-04 REEPDW087 0.26892	180118G2_Analyte	40	5.08	5592.342	5592.342	6271.517	89.17
55	IPA	180118G2_Analyte	40				6271.517	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_Standard	40	5.09	5232.268	5232.268	6271.517	83.43

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__2.qld

Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time
Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

ST180118G2-1

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ~~ST18018G2-1~~ PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	5.28e2	1.24e4	1.0000		3.02	3.01	1.22	1.474	83.3
2	2	PFHxA	313.2 > 268.9	5.69e2	1.02e4	1.0000		3.37	3.37	0.559	2.241	112.1
3	3	PFHpA	363 > 318.9	1.81e3	1.02e4	1.0000		3.88	3.89	1.77	2.021	101.0
4	4	PFHxS	398.9 > 79.6	7.35e2	1.24e4	1.0000		4.01	4.02	1.70	1.834	100.8
5	5	PFOA	413 > 368.7	1.81e3	1.02e4	1.0000		4.32	4.31	1.78	2.273	113.6
6	6	PFNA	463 > 418.8	1.72e3	1.02e4	1.0000		4.66	4.66	1.68	2.061	103.0
7	7	PFOS	499 >79.9	9.27e2	1.24e4	1.0000		4.72	4.72	2.14	1.882	101.7
8	8	PFDA	513 > 468.8	1.74e3	1.02e4	1.0000		4.89	4.96	1.71	2.252	112.6
9	9	N-MeFOSAA	570.1 > 419.0	7.09e2	7.11e3	1.0000		5.02	5.09	3.99	1.930	96.5
10	10	N-EtFOSAA	584.2 >419.0	5.18e2	7.11e3	1.0000		5.20	5.21	2.91	2.018	100.9
11	11	PFUnA	563 > 518.9	1.67e3	1.02e4	1.0000		5.15	5.22	1.64	2.150	107.5
12	12	PFDoA	612.9 > 318.8	4.05e2	1.02e4	1.0000		5.35	5.44	0.398	2.608	130.4
13	13	PFTrDA	662.9 > 618.9	2.57e3	1.02e4	1.0000		5.58	5.64	2.52	2.120	106.0
14	14	PFTeDA	712.9 > 668.8	2.36e3	1.02e4	1.0000		5.75	5.80	2.32	2.042	102.1
15	15	13C2-PFHxA	315 > 269.8	4.63e3	1.02e4	1.0000	0.517	3.46	3.37	4.55	8.797	88.0
16	16	13C2-PFDA	515.1 > 469.9	5.98e3	1.02e4	1.0000	0.543	4.92	4.96	5.87	10.827	108.3
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.71e3	7.11e3	1.0000	1.102	5.08	5.21	43.4	39.361	98.4
18	18	13C2-PFOA	414.9 > 369.7	1.02e4	1.02e4	1.0000	1.000	4.41	4.32	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.24e4	1.24e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	7.11e3	7.11e3	1.0000	1.000	5.16	5.08	40.0	40.000	100.0

MJT1/19/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180118G2_1	IPA 18G2-1	18-Jan-18	15:35:50
2	180118G2_2	ST180118G2-1 PFC CS-1 537 18A1203	18-Jan-18	15:48:16
3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

MJT1/19/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	180118G2_33	1800043-08 REEPDW509 0.27456	18-Jan-18	22:13:23
34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA 18G2	19-Jan-18	02:46:39
56	180118G2_56	ST180118G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

MJT1/19/2018

Vista Analytical Laboratory

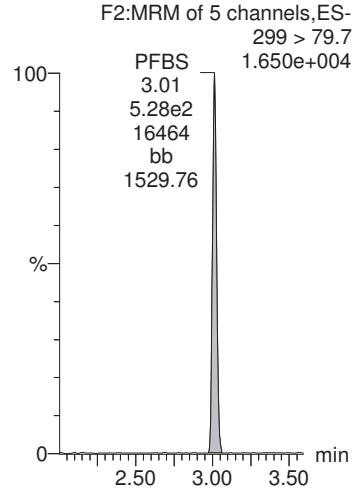
Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__2.qld

Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time
Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

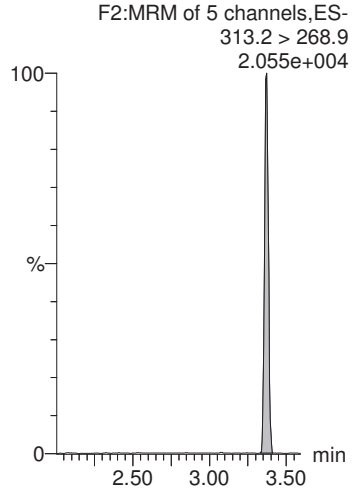
Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

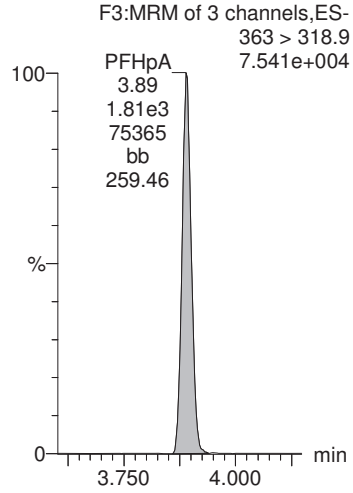
PFBS



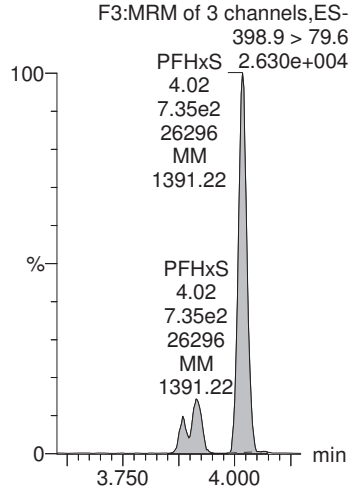
PFHxA



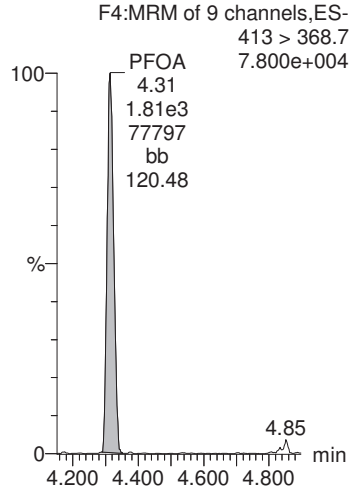
PFHpA



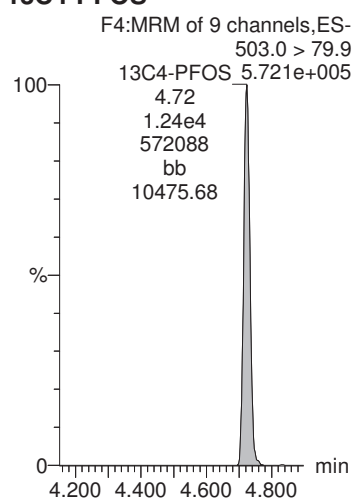
PFHxS



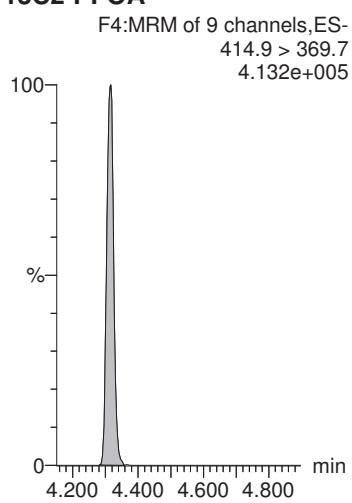
PFOA



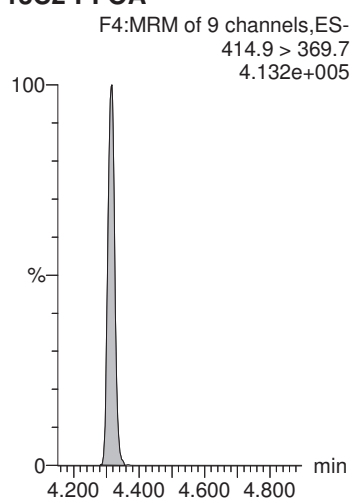
13C4-PFOS



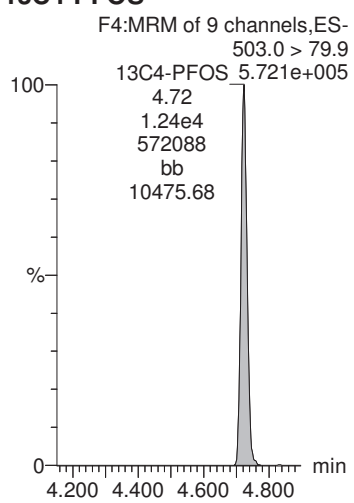
13C2-PFOA



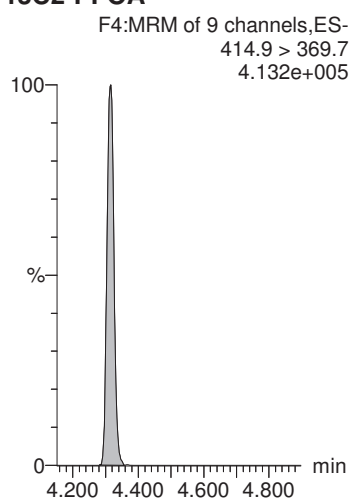
13C2-PFOA



13C4-PFOS



13C2-PFOA



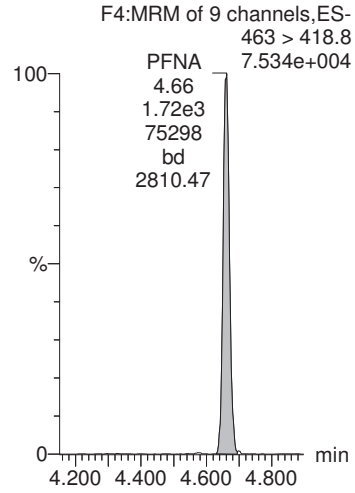
MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__2.qld

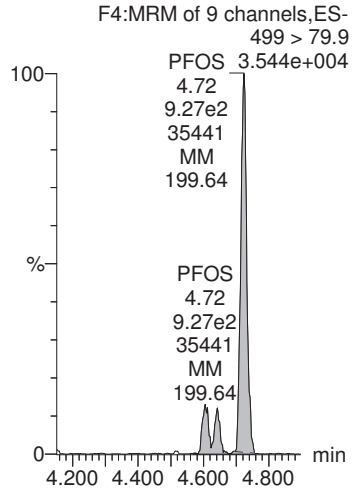
Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time
Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

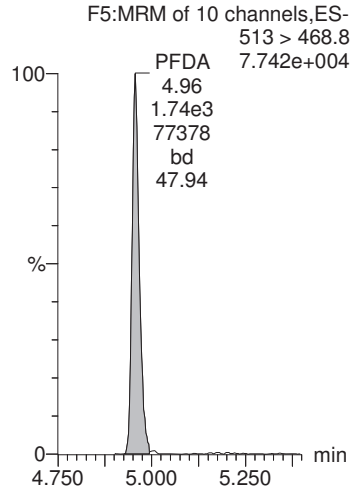
PFNA



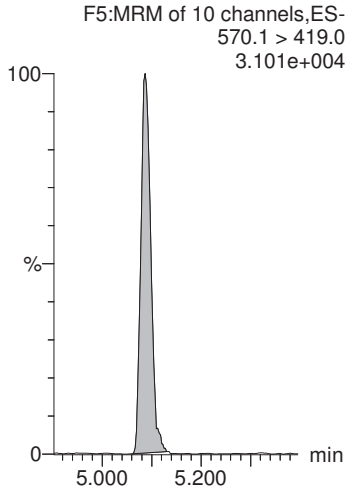
PFOS



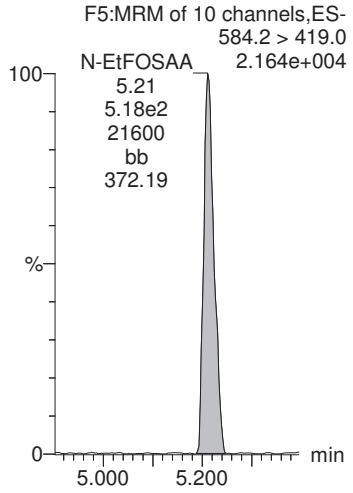
PFDA



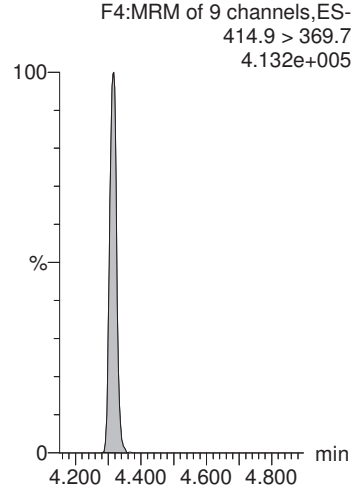
N-MeFOSAA



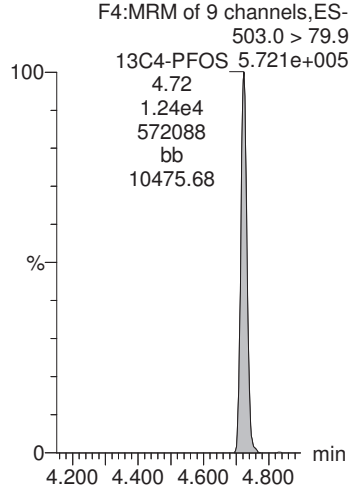
N-EtFOSAA



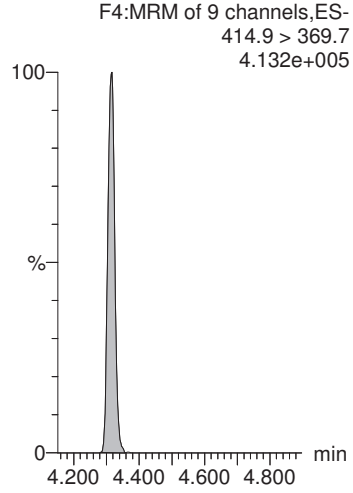
13C2-PFOA



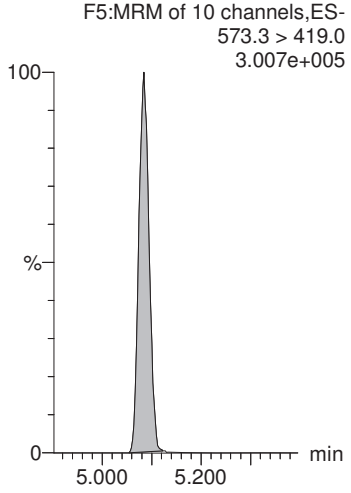
13C4-PFOS



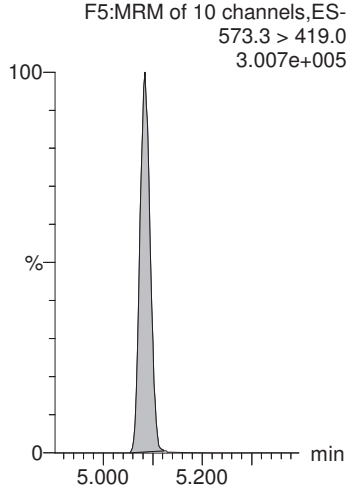
13C2-PFOA



d3-N-MeFOSAA



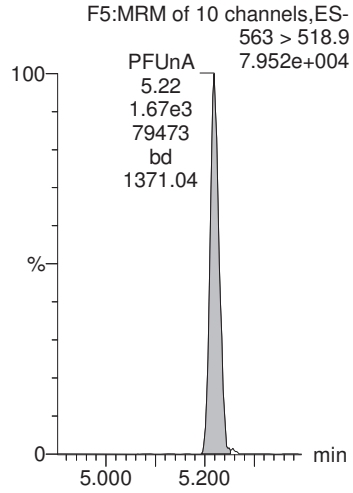
d3-N-MeFOSAA



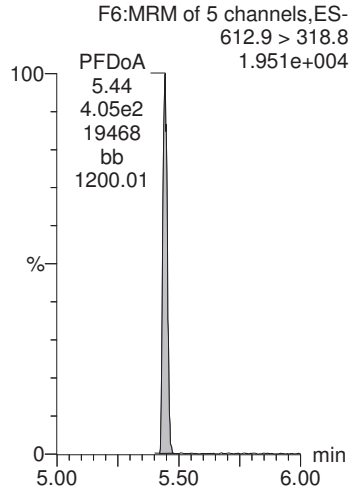
MJT1/19/2018

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

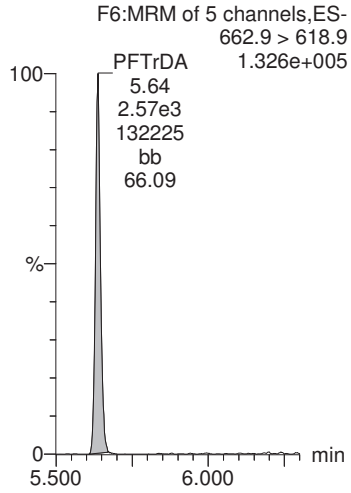
PFUnA



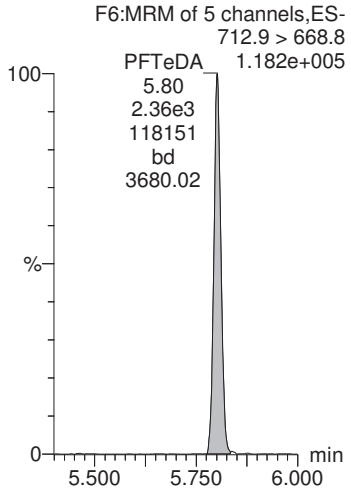
PFDoA



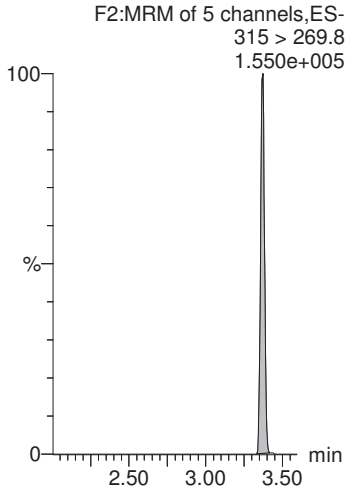
PFTrDA



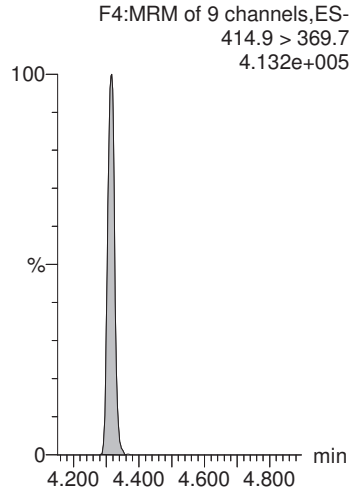
PFTeDA



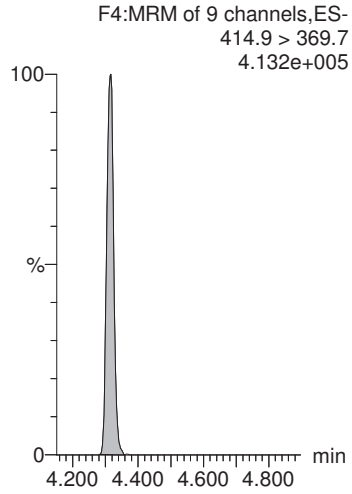
13C2-PFHxA



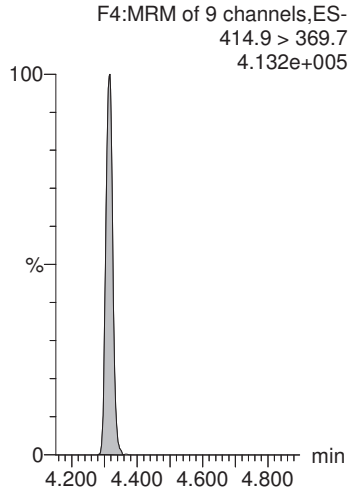
13C2-PFOA



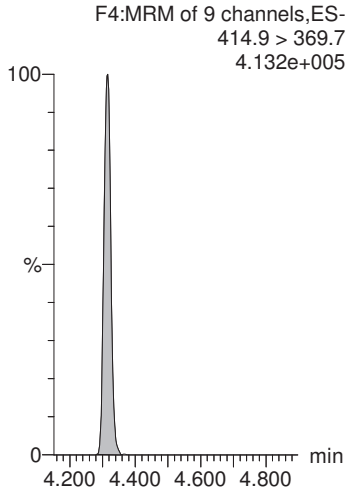
13C2-PFOA



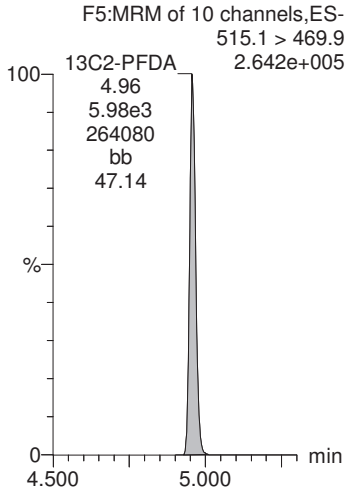
13C2-PFOA



13C2-PFOA



13C2-PFDA



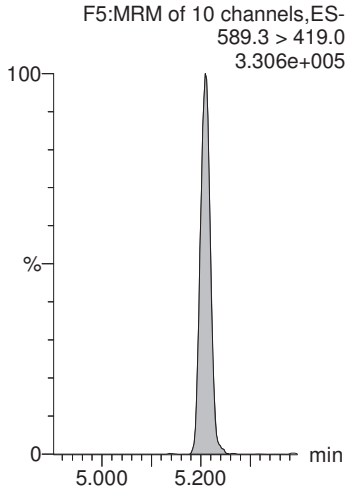
MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__2.qld

Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time
Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

d5-N-EtFOSAA



MJT1/19/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

*N-EtFOSAA @ 132.2
SAMPLES ARE ND FOR THIS COMPOUND

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	1	PFBS	299 > 79.7	6.05e3	1.08e4	1.0000		3.02	3.01	16.1	19.454	88.0	
2	2	PFHxA	313.2 > 268.9	5.04e3	9.60e3	1.0000		3.37	3.37	5.25	21.109	84.4	
3	3	PFHpA	363 > 318.9	1.94e4	9.60e3	1.0000		3.88	3.89	20.2	23.017	92.1	
4	4	PFHxS	398.9 > 79.6	7.31e3	1.08e4	1.0000		4.01	4.02	19.4	21.001	92.1	
5	5	PFOA	413 > 368.7	1.87e4	9.60e3	1.0000		4.31	4.31	19.5	24.963	99.9	
6	6	PFNA	463 > 418.8	1.86e4	9.60e3	1.0000		4.66	4.66	19.3	23.662	94.6	
7	7	PFOS	499 >79.9	9.07e3	1.08e4	1.0000		4.72	4.73	24.1	21.203	91.8	
8	8	PFDA	513 > 468.8	1.67e4	9.60e3	1.0000		4.88	4.96	17.4	23.567	94.3	
9	9	N-MeFOSAA	570.1 > 419.0	7.95e3	5.14e3	1.0000		5.02	5.09	61.9	29.629	118.5	
10	10	N-EtFOSAA	584.2 >419.0	6.13e3	5.14e3	1.0000		5.20	5.21	47.7	33.049	132.2	*
11	11	PFUnA	563 > 518.9	1.69e4	9.60e3	1.0000		5.15	5.22	17.6	23.032	92.1	
12	12	PFDoA	612.9 > 318.8	3.50e3	9.60e3	1.0000		5.35	5.44	3.65	23.929	95.7	
13	13	PFTrDA	662.9 > 618.9	2.64e4	9.60e3	1.0000		5.57	5.64	27.5	23.128	92.5	
14	14	PFTeDA	712.9 > 668.8	2.76e4	9.60e3	1.0000		5.74	5.80	28.8	25.400	101.6	
15	15	13C2-PFHxA	315 > 269.8	4.56e3	9.60e3	1.0000	0.517	3.46	3.37	4.75	9.175	91.7	
16	16	13C2-PFDA	515.1 > 469.9	5.23e3	9.60e3	1.0000	0.543	4.92	4.96	5.45	10.045	100.4	
17	17	d5-N-EtFOSAA	589.3 > 419.0	6.65e3	5.14e3	1.0000	1.102	5.08	5.21	51.7	46.934	117.3	
18	18	13C2-PFOA	414.9 > 369.7	9.60e3	9.60e3	1.0000	1.000	4.41	4.31	10.0	10.000	100.0	
19	19	13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0	
20	20	d3-N-MeFOSAA	573.3 > 419.0	5.14e3	5.14e3	1.0000	1.000	5.16	5.08	40.0	40.000	100.0	

MJT1/19/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180118G2_1	IPA	18-Jan-18	15:35:50
2	180118G2_2	ST18018G2-1 PFC CS-1 537 18A1203	18-Jan-18	15:48:16
3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

MJT1/19/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	180118G2_33	1800043-08 REEPDW509 0.27456	18-Jan-18	22:13:23
34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA	19-Jan-18	02:46:39
56	180118G2_56	ST18011G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

8

MJT1/19/2018

Vista Analytical Laboratory

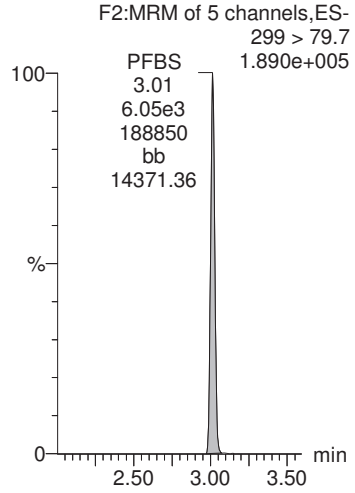
Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

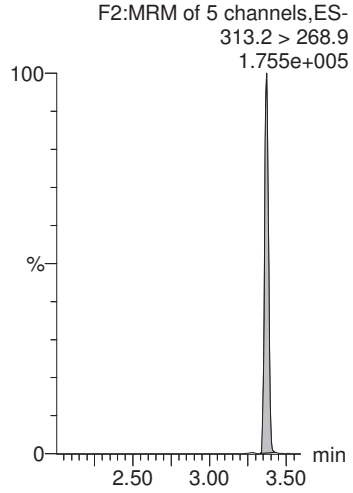
Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

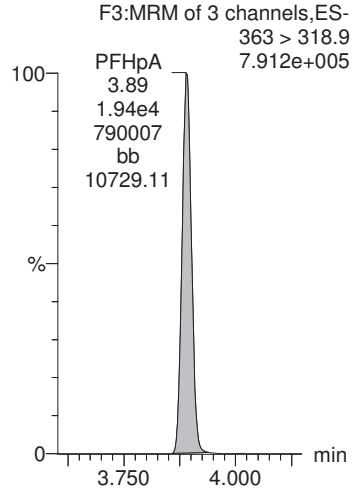
PFBS



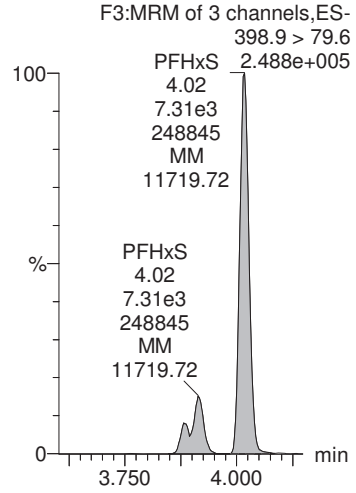
PFHxA



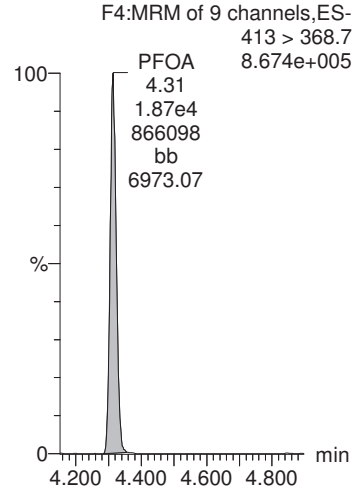
PFHpA



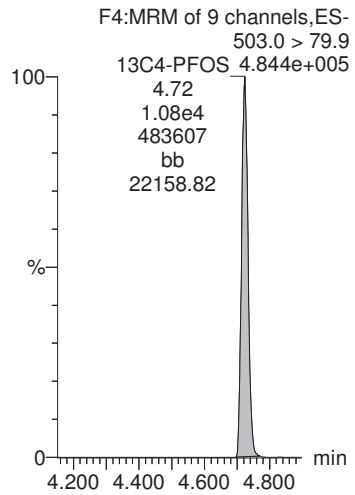
PFHxS



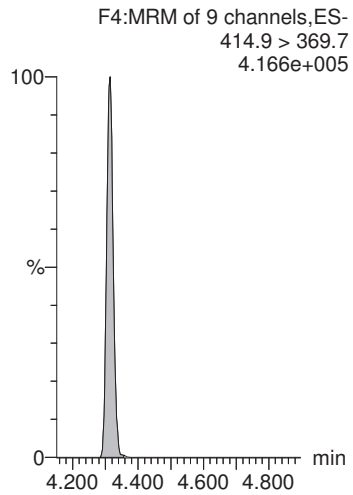
PFOA



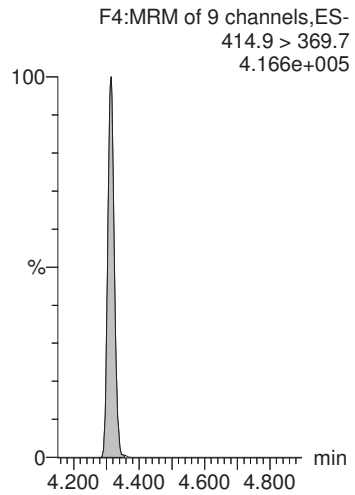
13C4-PFOS



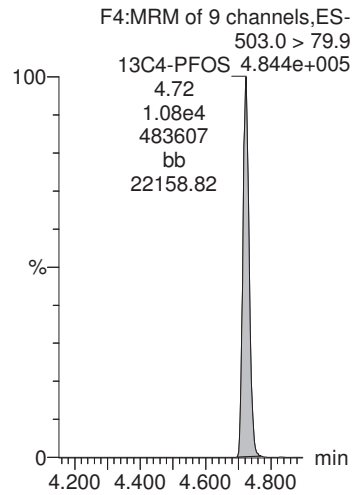
13C2-PFOA



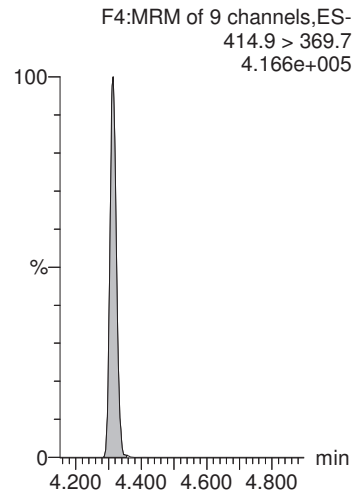
13C2-PFOA



13C4-PFOS



13C2-PFOA



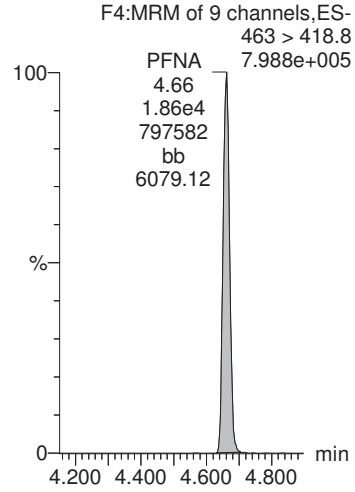
MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

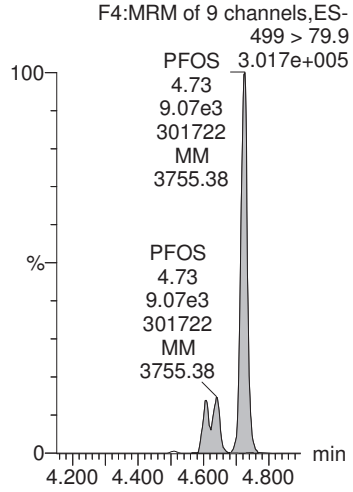
Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

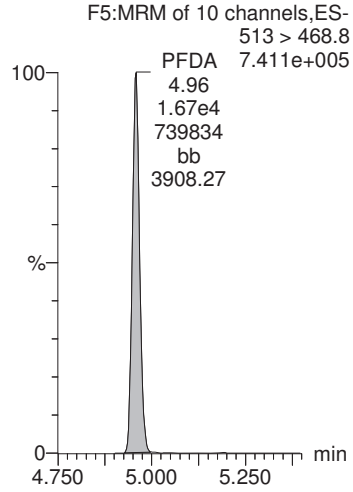
PFNA



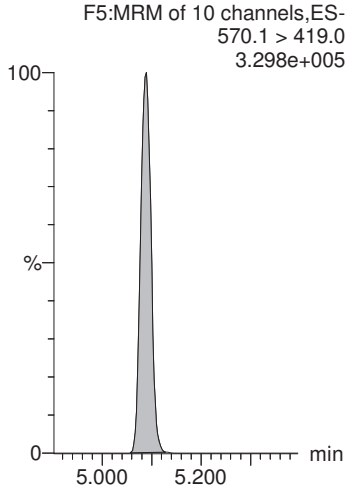
PFOS



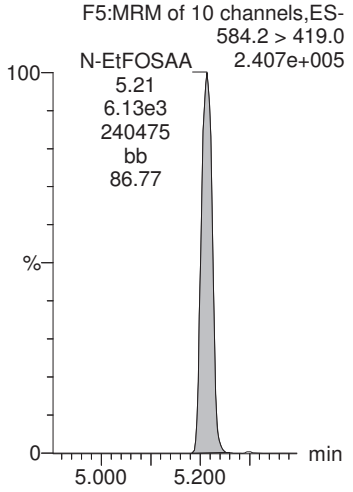
PFDA



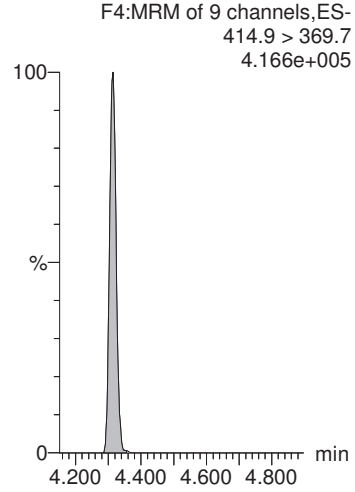
N-MeFOSAA



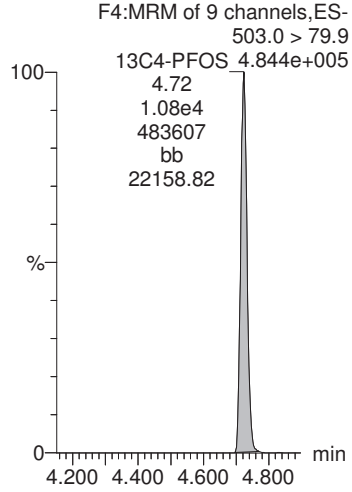
N-EtFOSAA



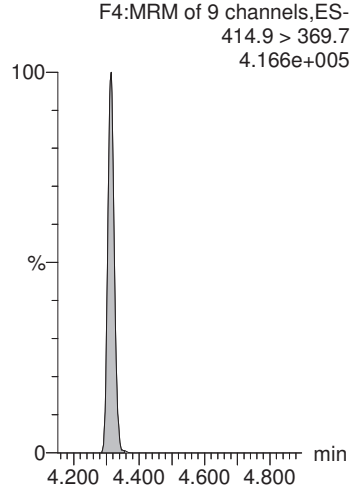
13C2-PFOA



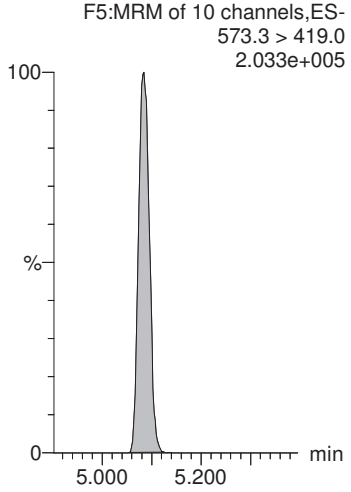
13C4-PFOS



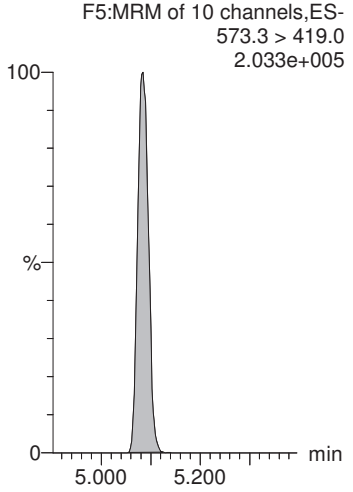
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



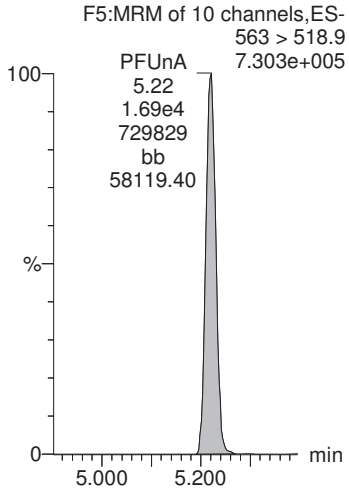
MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

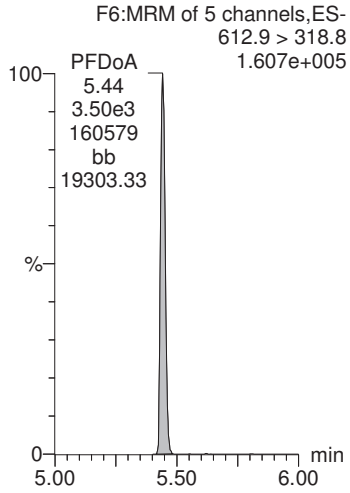
Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

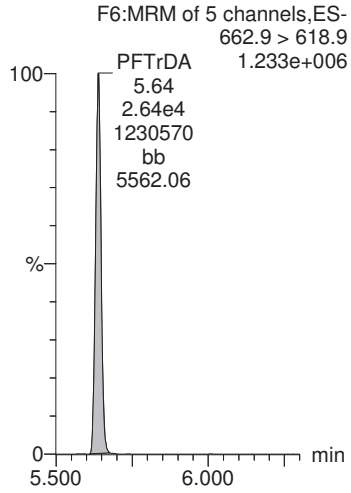
PFUnA



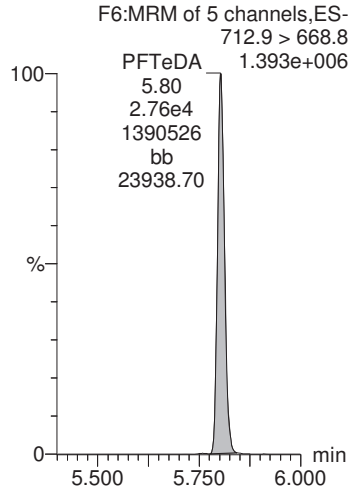
PFDoA



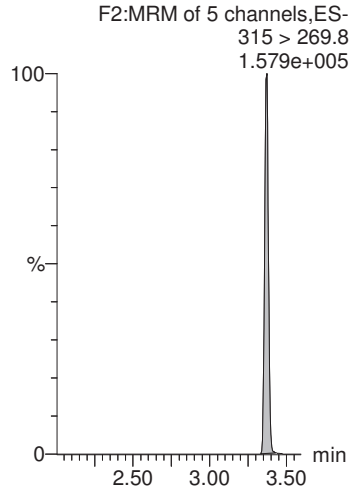
PFTrDA



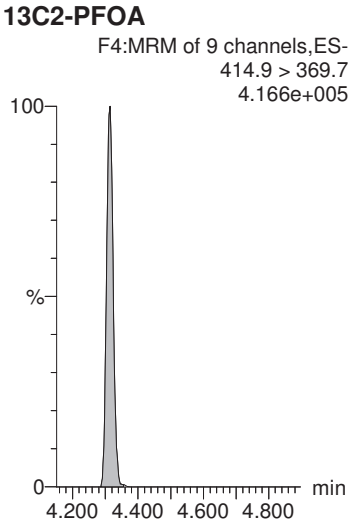
PFTeDA



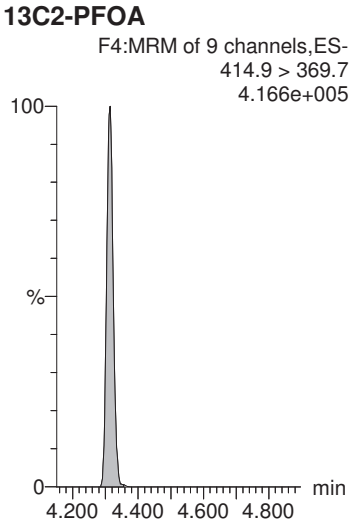
13C2-PFHxA



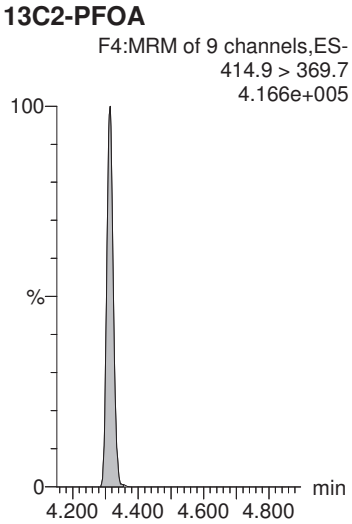
13C2-PFOA



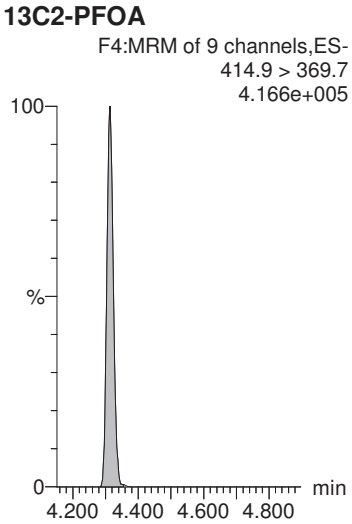
13C2-PFOA



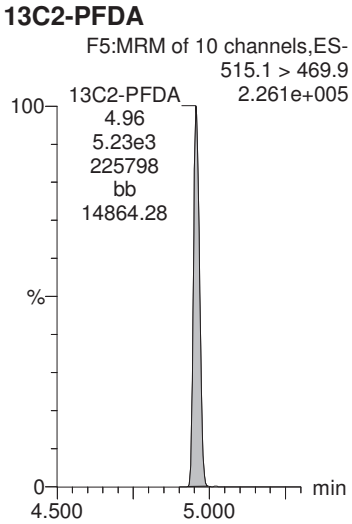
13C2-PFOA



13C2-PFOA



13C2-PFDA



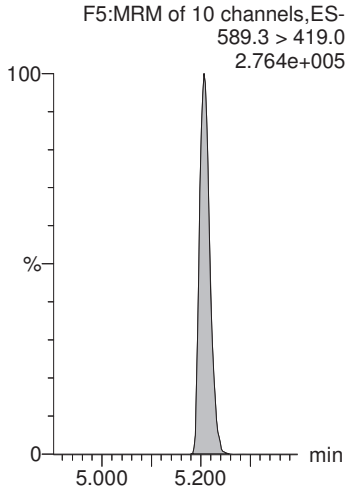
MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

d5-N-EtFOSAA



MJT1/19/2018

IS AREAS

ICAL

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	B8A0034-BLK1 LRB 0.25	180125G3_	Analyte	10	4.32	10908.52	10908.52	9643.73	113.12
2	B8A0034-BS1 LFB 0.25	180125G3_	Analyte	10	4.31	11199.99	11199.99	9643.73	116.14
3	1800019-04 REEPDW087FRB 0.25321	180125G3_	Analyte	10	4.31	10737.83	10737.83	9643.73	111.35
4	IPA	180125G3_	Analyte	10				9643.73	0.00
5	B8A0089-BS1 LFB 0.25	180125G3_	Analyte	10	4.32	10475.49	10475.49	9643.73	108.62
6	1800085-01 IR54-PSW-VL101-17D 0.24531	180125G3_	Analyte	10	4.31	10063.93	10063.93	9643.73	104.36
7	1800085-02 IR54-PSW-VL101D-17D 0.24722	180125G3_	Analyte	10	4.31	10178	10178	9643.73	105.54
8	1800085-03 IR54-PSW-FB-17D 0.25105	180125G3_	Analyte	10	4.32	9547.935	9547.935	9643.73	99.01
9	IPA	180125G3_	Analyte	10				9643.73	0.00
10	B8A0075-BLK1 LRB 0.25	180125G3_	Analyte	10	4.32	8686.093	8686.093	9643.73	90.07
11	B8A0075-BS1 LFB 0.25	180125G3_	Analyte	10	4.32	9132.467	9132.467	9643.73	94.70
12	B8A0075-BSD1 LFBD 0.25	180125G3_	Analyte	10	4.32	8673.766	8673.766	9643.73	89.94
13	1800059-01 REEPDW107 0.26968	180125G3_	Analyte	10	4.32	8417.429	8417.429	9643.73	87.28
14	1800059-02 REEPDW108 0.27953	180125G3_	Analyte	10	4.32	8988.645	8988.645	9643.73	93.21
15	1800059-03 REEPDW109 0.27971	180125G3_	Analyte	10	4.32	8085.889	8085.889	9643.73	83.85
16	1800061-01 REEPDW107FRB 0.25079	180125G3_	Analyte	10	4.32	9052.199	9052.199	9643.73	93.87
17	1800061-02 REEPDW108FRB 0.25557	180125G3_	Analyte	10	4.32	8746.813	8746.813	9643.73	90.70
18	1800061-03 REEPDW109FRB 0.25894	180125G3_	Analyte	10	4.32	9037.007	9037.007	9643.73	93.71
19	1800071-01 REEPDW110 0.27244	180125G3_	Analyte	10	4.32	8078.605	8078.605	9643.73	83.77
20	1800071-02 REEPDW510 0.2906	180125G3_	Analyte	10	4.32	9061.098	9061.098	9643.73	93.96
21	1800071-03@5X REEPDW111 0.27655	180125G3_	Analyte	10	4.32	1777.332	1777.332	9643.73	18.43
22	1800071-03 REEPDW111 0.27655	180125G3_	Analyte	10	4.32	8361.391	8361.391	9643.73	86.70
23	IPA	180125G3_	Analyte	10				9643.73	0.00
24	ST180125G3-10 PFC CS2 537 18A2412	180125G3_	Analyte	10	4.32	10053.69	10053.69	9643.73	104.25
25	IPA	180125G3_	Analyte	10				9643.73	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_	Analyte	10	4.32	9586.943	9586.943	9643.73	99.41
27	1800071-05 REEPDW113 0.27248	180125G3_	Analyte	10	4.32	9063.63	9063.63	9643.73	93.98

GM 1/26/2018

28	1800073-01 REEPDW110FRB 0.25764	180125G3_	Analyte	10	4.32	8690.83	8690.83	9643.73	90.12
29	1800073-02 REEPDW111FRB 0.25603	180125G3_	Analyte	10	4.32	8921.441	8921.441	9643.73	92.51
30	1800073-03 REEPDW112FRB 0.25986	180125G3_	Analyte	10	4.32	9420.715	9420.715	9643.73	97.69
31	1800073-04 REEPDW113FRB 0.25986	180125G3_	Analyte	10	4.32	8787.458	8787.458	9643.73	91.12
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_	Analyte	10	4.32	10316.85	10316.85	9643.73	106.98
33	1800043-01@10x REEPDW094 0.27915	180125G3_	Analyte	10	4.32	1075.619	1075.619	9643.73	11.15
34	1800043-02 REEPDW095 0.27047	180125G3_	Analyte	10	4.32	9029.992	9029.992	9643.73	93.64
35	1800043-08 @10xREEPDW509 0.27456	180125G3_	Analyte	10	4.32	1074.415	1074.415	9643.73	11.14
36	1800043-09@5x REEPDW101 0.28336	180125G3_	Analyte	10	4.32	2007.575	2007.575	9643.73	20.82
37	IPA	180125G3_	Analyte	10				9643.73	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_	Analyte	10	4.32	9573.709	9573.709	9643.73	99.27

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	B8A0034-BLK1 LRB 0.25	180125G3_	Analyte	28.7	4.72	12574.81	12574.81	12588.96	99.89
2	B8A0034-BS1 LFB 0.25	180125G3_	Analyte	28.7	4.72	13374.32	13374.32	12588.96	106.24
3	1800019-04 REEPDW087FRB 0.25321	180125G3_	Analyte	28.7	4.71	12934.18	12934.18	12588.96	102.74
4	IPA	180125G3_	Analyte	28.7				12588.96	0.00
5	B8A0089-BS1 LFB 0.25	180125G3_	Analyte	28.7	4.72	11136.15	11136.15	12588.96	88.46
6	1800085-01 IR54-PSW-VL101-17D 0.24531	180125G3_	Analyte	28.7	4.72	10763.41	10763.41	12588.96	85.50
7	1800085-02 IR54-PSW-VL101D-17D 0.24722	180125G3_	Analyte	28.7	4.72	11597.29	11597.29	12588.96	92.12
8	1800085-03 IR54-PSW-FB-17D 0.25105	180125G3_	Analyte	28.7	4.72	10704.68	10704.68	12588.96	85.03
9	IPA	180125G3_	Analyte	28.7				12588.96	0.00
10	B8A0075-BLK1 LRB 0.25	180125G3_	Analyte	28.7	4.72	9766.662	9766.662	12588.96	77.58
11	B8A0075-BS1 LFB 0.25	180125G3_	Analyte	28.7	4.72	9374.266	9374.266	12588.96	74.46
12	B8A0075-BSD1 LFBD 0.25	180125G3_	Analyte	28.7	4.72	9334.755	9334.755	12588.96	74.15
13	1800059-01 REEPDW107 0.26968	180125G3_	Analyte	28.7	4.71	9584.512	9584.512	12588.96	76.13
14	1800059-02 REEPDW108 0.27953	180125G3_	Analyte	28.7	4.72	9509.321	9509.321	12588.96	75.54
15	1800059-03 REEPDW109 0.27971	180125G3_	Analyte	28.7	4.72	9849.394	9849.394	12588.96	78.24
16	1800061-01 REEPDW107FRB 0.25079	180125G3_	Analyte	28.7	4.72	10145.76	10145.76	12588.96	80.59
17	1800061-02 REEPDW108FRB 0.25557	180125G3_	Analyte	28.7	4.72	10213.2	10213.2	12588.96	81.13
18	1800061-03 REEPDW109FRB 0.25894	180125G3_	Analyte	28.7	4.72	9689.888	9689.888	12588.96	76.97
19	1800071-01 REEPDW110 0.27244	180125G3_	Analyte	28.7	4.72	9846.557	9846.557	12588.96	78.22

GM 1/26/2018

20	1800071-02 REEPDW510 0.2906	180125G3_	Analyte	28.7	4.72	9877.075	9877.075	12588.96	78.46
21	1800071-03@5X REEPDW111 0.27655	180125G3_	Analyte	28.7	4.72	2025.198	2025.198	12588.96	16.09
22	1800071-03 REEPDW111 0.27655	180125G3_	Analyte	28.7	4.72	9852.843	9852.843	12588.96	78.27
23	IPA	180125G3_	Analyte	28.7				12588.96	0.00
24	ST180125G3-10 PFC CS2 537 18A2412	180125G3_	Analyte	28.7	4.72	10759.85	10759.85	12588.96	85.47
25	IPA	180125G3_	Analyte	28.7				12588.96	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_	Analyte	28.7	4.72	10086.25	10086.25	12588.96	80.12
27	1800071-05 REEPDW113 0.27248	180125G3_	Analyte	28.7	4.72	9552.515	9552.515	12588.96	75.88
28	1800073-01 REEPDW110FRB 0.25764	180125G3_	Analyte	28.7	4.72	9547.767	9547.767	12588.96	75.84
29	1800073-02 REEPDW111FRB 0.25603	180125G3_	Analyte	28.7	4.72	9726.767	9726.767	12588.96	77.26
30	1800073-03 REEPDW112FRB 0.25986	180125G3_	Analyte	28.7	4.72	11019.56	11019.56	12588.96	87.53
31	1800073-04 REEPDW113FRB 0.25986	180125G3_	Analyte	28.7	4.72	9562.573	9562.573	12588.96	75.96
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_	Analyte	28.7	4.72	11193.58	11193.58	12588.96	88.92
33	1800043-01@10x REEPDW094 0.27915	180125G3_	Analyte	28.7	4.72	1433.627	1433.627	12588.96	11.39
34	1800043-02 REEPDW095 0.27047	180125G3_	Analyte	28.7	4.72	10216.99	10216.99	12588.96	81.16
35	1800043-08 @10xREEPDW509 0.27456	180125G3_	Analyte	28.7	4.72	1128.168	1128.168	12588.96	8.96
36	1800043-09@5x REEPDW101 0.28336	180125G3_	Analyte	28.7	4.72	1879.803	1879.803	12588.96	14.93
37	IPA	180125G3_	Analyte	28.7				12588.96	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_	Analyte	28.7	4.72	9907.319	9907.319	12588.96	78.70

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	B8A0034-BLK1 LRB 0.25	180125G3_	Analyte	40	5.08	9375.845	9375.845	7942.65	118.04
2	B8A0034-BS1 LFB 0.25	180125G3_	Analyte	40	5.07	8649.617	8649.617	7942.65	108.90
3	1800019-04 REEPDW087FRB 0.25321	180125G3_	Analyte	40	5.07	7852.761	7852.761	7942.65	98.87
4	IPA	180125G3_	Analyte	40				7942.65	0.00
5	B8A0089-BS1 LFB 0.25	180125G3_	Analyte	40	5.08	7737.961	7737.961	7942.65	97.42
6	1800085-01 IR54-PSW-VL101-17D 0.24531	180125G3_	Analyte	40	5.08	6887.121	6887.121	7942.65	86.71
7	1800085-02 IR54-PSW-VL101D-17D 0.24722	180125G3_	Analyte	40	5.07	6831.731	6831.731	7942.65	86.01
8	1800085-03 IR54-PSW-FB-17D 0.25105	180125G3_	Analyte	40	5.07	6984.664	6984.664	7942.65	87.94
9	IPA	180125G3_	Analyte	40				7942.65	0.00
10	B8A0075-BLK1 LRB 0.25	180125G3_	Analyte	40	5.08	6129.228	6129.228	7942.65	77.17
11	B8A0075-BS1 LFB 0.25	180125G3_	Analyte	40	5.08	5849.33	5849.33	7942.65	73.64

GM 1/26/2018

12	B8A0075-BSD1 LFBD 0.25	180125G3_ Analyte	40	5.08	5698.645	5698.645	7942.65	71.75
13	1800059-01 REEPDW107 0.26968	180125G3_ Analyte	40	5.08	5814.42	5814.42	7942.65	73.21
14	1800059-02 REEPDW108 0.27953	180125G3_ Analyte	40	5.08	5193.149	5193.149	7942.65	65.38
15	1800059-03 REEPDW109 0.27971	180125G3_ Analyte	40	5.08	6236.424	6236.424	7942.65	78.52
16	1800061-01 REEPDW107FRB 0.25079	180125G3_ Analyte	40	5.07	6231.202	6231.202	7942.65	78.45
17	1800061-02 REEPDW108FRB 0.25557	180125G3_ Analyte	40	5.08	5851.768	5851.768	7942.65	73.68
18	1800061-03 REEPDW109FRB 0.25894	180125G3_ Analyte	40	5.08	5624.321	5624.321	7942.65	70.81
19	1800071-01 REEPDW110 0.27244	180125G3_ Analyte	40	5.07	5718.835	5718.835	7942.65	72.00
20	1800071-02 REEPDW510 0.2906	180125G3_ Analyte	40	5.08	6009.56	6009.56	7942.65	75.66
21	1800071-03@5X REEPDW111 0.27655	180125G3_ Analyte	40	5.07	1159.883	1159.883	7942.65	14.60
22	1800071-03 REEPDW111 0.27655	180125G3_ Analyte	40	5.08	5752.955	5752.955	7942.65	72.43
23	IPA	180125G3_ Analyte	40				7942.65	0.00
24	ST180125G3-10 PFC CS2 537 18A2412	180125G3_ Analyte	40	5.08	5825.273	5825.273	7942.65	73.34
25	IPA	180125G3_ Analyte	40				7942.65	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_ Analyte	40	5.08	5236.174	5236.174	7942.65	65.92
27	1800071-05 REEPDW113 0.27248	180125G3_ Analyte	40	5.07	5775.011	5775.011	7942.65	72.71
28	1800073-01 REEPDW110FRB 0.25764	180125G3_ Analyte	40	5.08	5838.894	5838.894	7942.65	73.51
29	1800073-02 REEPDW111FRB 0.25603	180125G3_ Analyte	40	5.07	5353.959	5353.959	7942.65	67.41
30	1800073-03 REEPDW112FRB 0.25986	180125G3_ Analyte	40	5.08	5830.854	5830.854	7942.65	73.41
31	1800073-04 REEPDW113FRB 0.25986	180125G3_ Analyte	40	5.08	4695.425	4695.425	7942.65	59.12
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_ Analyte	40	5.08	6723.257	6723.257	7942.65	84.65
33	1800043-01@10x REEPDW094 0.27915	180125G3_ Analyte	40	5.08	725.456	725.456	7942.65	9.13
34	1800043-02 REEPDW095 0.27047	180125G3_ Analyte	40	5.08	5234.369	5234.369	7942.65	65.90
35	1800043-08 @10xREEPDW509 0.27456	180125G3_ Analyte	40	5.08	762.612	762.612	7942.65	9.60
36	1800043-09@5x REEPDW101 0.28336	180125G3_ Analyte	40	5.08	1006.873	1006.873	7942.65	12.68
37	IPA	180125G3_ Analyte	40				7942.65	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_ Analyte	40	5.08	5715.691	5715.691	7942.65	71.96

CCAL

Compound 18: 13C2-PFOA ST180125G3-10 PFC CS2 537 18A2412

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
24 ST180125G3-10 PFC CS2 537 18A2412	180125G3_	Analyte	10	4.32	10053.69	10053.69	10053.69	100.00

GM 1/26/2018

25	IPA	180125G3_	Analyte	10			10053.69	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_	Analyte	10	4.32	9586.943	9586.943	10053.69	95.36
27	1800071-05 REEPDW113 0.27248	180125G3_	Analyte	10	4.32	9063.63	9063.63	10053.69	90.15
28	1800073-01 REEPDW110FRB 0.25764	180125G3_	Analyte	10	4.32	8690.83	8690.83	10053.69	86.44
29	1800073-02 REEPDW111FRB 0.25603	180125G3_	Analyte	10	4.32	8921.441	8921.441	10053.69	88.74
30	1800073-03 REEPDW112FRB 0.25986	180125G3_	Analyte	10	4.32	9420.715	9420.715	10053.69	93.70
31	1800073-04 REEPDW113FRB 0.25986	180125G3_	Analyte	10	4.32	8787.458	8787.458	10053.69	87.41
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_	Analyte	10	4.32	10316.85	10316.85	10053.69	102.62
33	1800043-01@10x REEPDW094 0.27915	180125G3_	Analyte	10	4.32	1075.619	1075.619	10053.69	10.70
34	1800043-02 REEPDW095 0.27047	180125G3_	Analyte	10	4.32	9029.992	9029.992	10053.69	89.82
35	1800043-08 @10xREEPDW509 0.27456	180125G3_	Analyte	10	4.32	1074.415	1074.415	10053.69	10.69
36	1800043-09@5x REEPDW101 0.28336	180125G3_	Analyte	10	4.32	2007.575	2007.575	10053.69	19.97
37	IPA	180125G3_	Analyte	10			10053.69	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_	Analyte	10	4.32	9573.709	9573.709	10053.69	95.23

Compound 19: 13C4-PFOS ST180125G3-10 PFC CS2 537 18A2412

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
24	ST180125G3-10 PFC CS2 537 18A2412	180125G3_	Analyte	28.7	4.72	10759.85	10759.85	10759.85	100.00
25	IPA	180125G3_	Analyte	28.7				10759.85	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_	Analyte	28.7	4.72	10086.25	10086.25	10759.85	93.74
27	1800071-05 REEPDW113 0.27248	180125G3_	Analyte	28.7	4.72	9552.515	9552.515	10759.85	88.78
28	1800073-01 REEPDW110FRB 0.25764	180125G3_	Analyte	28.7	4.72	9547.767	9547.767	10759.85	88.74
29	1800073-02 REEPDW111FRB 0.25603	180125G3_	Analyte	28.7	4.72	9726.767	9726.767	10759.85	90.40
30	1800073-03 REEPDW112FRB 0.25986	180125G3_	Analyte	28.7	4.72	11019.56	11019.56	10759.85	102.41
31	1800073-04 REEPDW113FRB 0.25986	180125G3_	Analyte	28.7	4.72	9562.573	9562.573	10759.85	88.87
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_	Analyte	28.7	4.72	11193.58	11193.58	10759.85	104.03
33	1800043-01@10x REEPDW094 0.27915	180125G3_	Analyte	28.7	4.72	1433.627	1433.627	10759.85	13.32
34	1800043-02 REEPDW095 0.27047	180125G3_	Analyte	28.7	4.72	10216.99	10216.99	10759.85	94.95
35	1800043-08 @10xREEPDW509 0.27456	180125G3_	Analyte	28.7	4.72	1128.168	1128.168	10759.85	10.48
36	1800043-09@5x REEPDW101 0.28336	180125G3_	Analyte	28.7	4.72	1879.803	1879.803	10759.85	17.47
37	IPA	180125G3_	C+A174:J19	28.7				10759.85	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_	Analyte	28.7	4.72	9907.319	9907.319	10759.85	92.08

GM 1/26/2018

Compound 20: d3-N-MeFOSAA ST180125G3-10 PFC CS2 537 18A2412

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
24	ST180125G3-10 PFC CS2 537 18A2412	180125G3_	Analyte	40	5.08	5825.273	5825.273	5825.273	100.00
25	IPA	180125G3_	Analyte	40				5825.273	0.00
26	1800071-04 REEPDW112 0.27008	180125G3_	Analyte	40	5.08	5236.174	5236.174	5825.273	89.89
27	1800071-05 REEPDW113 0.27248	180125G3_	Analyte	40	5.07	5775.011	5775.011	5825.273	99.14
28	1800073-01 REEPDW110FRB 0.25764	180125G3_	Analyte	40	5.08	5838.894	5838.894	5825.273	100.23
29	1800073-02 REEPDW111FRB 0.25603	180125G3_	Analyte	40	5.07	5353.959	5353.959	5825.273	91.91
30	1800073-03 REEPDW112FRB 0.25986	180125G3_	Analyte	40	5.08	5830.854	5830.854	5825.273	100.10
31	1800073-04 REEPDW113FRB 0.25986	180125G3_	Analyte	40	5.08	4695.425	4695.425	5825.273	80.60
32	1800013-02 WI-CV-1RW23P-1217 0.26659	180125G3_	Analyte	40	5.08	6723.257	6723.257	5825.273	115.42
33	1800043-01@10x REEPDW094 0.27915	180125G3_	Analyte	40	5.08	725.456	725.456	5825.273	12.45
34	1800043-02 REEPDW095 0.27047	180125G3_	Analyte	40	5.08	5234.369	5234.369	5825.273	89.86
35	1800043-08 @10xREEPDW509 0.27456	180125G3_	Analyte	40	5.08	762.612	762.612	5825.273	13.09
36	1800043-09@5x REEPDW101 0.28336	180125G3_	Analyte	40	5.08	1006.873	1006.873	5825.273	17.28
37	IPA	180125G3_	Analyte	40				5825.273	0.00
38	ST180125G3-11 PFC CS4 537 18A2414	180125G3_	Analyte	40	5.08	5715.691	5715.691	5825.273	98.12

GM 1/26/2018

LC Calibration Standards Review Checklist Q1

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	MA
Calibration ID:	ST180125G3-10	L [✓ M] H	A ☑ ↓	☑	☑	☑	☑	☑	☐ ↓
Calibration ID:	↓ -11	L M [✓ H]	☑	☑ Ⓐ	☑	☑	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 4/5/17

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Reviewed By: JA. 01/26/2018
Initials/Date

Comments: DW L14_totals
Ⓐ PFHxA below limit criteria.

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-37.qld

Last Altered: Friday, January 26, 2018 11:05:49 Pacific Standard Time
Printed: Friday, January 26, 2018 11:08:39 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_37, Date: 25-Jan-2018, Time: 22:47:40, ID: ST180125G3-10 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	6.92e3	1.08e4	1.0000		3.02	3.00	18.5	21.779	98.5
2	2	PFHxA	313.2 > 268.9	4.99e3	1.01e4	1.0000		3.37	3.38	4.96	17.668	70.7
3	3	PFHpA	363 > 318.9	1.86e4	1.01e4	1.0000		3.88	3.90	18.5	22.722	90.9
4	4	PFHxS	398.9 > 79.6	7.92e3	1.08e4	1.0000		4.01	4.02	21.1	23.971	105.1
5	5	PFOA	413 > 368.7	1.93e4	1.01e4	1.0000		4.32	4.32	19.2	23.404	93.6
6	6	PFNA	463 > 418.8	2.08e4	1.01e4	1.0000		4.66	4.66	20.7	22.238	89.0
7	7	PFOS	499 >79.9	9.95e3	1.08e4	1.0000		4.72	4.72	26.5	24.294	105.2
8	8	PFDA	513 > 468.8	1.64e4	1.01e4	1.0000		4.99	4.96	16.3	18.156	72.6
9	9	N-MeFOSAA	570.1 > 419.0	8.49e3	5.83e3	1.0000		5.02	5.08	58.3	27.395	109.6
10	10	N-EtFOSAA	584.2 >419.0	5.36e3	5.83e3	1.0000		5.20	5.20	36.8	25.349	101.4
11	11	PFDoA	612.9 > 318.8	3.80e3	1.01e4	1.0000		5.35	5.42	3.78	23.627	94.5
12	12	PFUnA	563 > 518.9	1.72e4	1.01e4	1.0000		5.15	5.21	17.1	19.532	78.1
13	13	PFTrDA	662.9 > 618.9	2.78e4	1.01e4	1.0000		5.68	5.61	27.7	21.259	85.0
14	14	PFTeDA	712.9 > 668.8	2.85e4	1.01e4	1.0000		5.85	5.78	28.4	22.697	90.8
15	15	13C2-PFHxA	315 > 269.8	4.95e3	1.01e4	1.0000	0.486	3.46	3.38	4.93	10.135	101.3
16	16	13C2-PFDA	515.1 > 469.9	5.23e3	1.01e4	1.0000	0.675	4.92	4.96	5.20	7.703	77.0
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.33e3	5.83e3	1.0000	1.076	5.08	5.20	50.3	46.780	116.9
18	18	13C2-PFOA	414.9 > 369.7	1.01e4	1.01e4	1.0000	1.000	4.31	4.32	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	5.83e3	5.83e3	1.0000	1.000	5.16	5.08	40.0	40.000	100.0

70-130

1/26/18

JA. 01/26/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 26, 2018 11:31:07 Pacific Standard Time
Printed: Friday, January 26, 2018 11:31:52 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 26 Jan 2018 11:13:56
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180125G3_1	IPA	25-Jan-18	15:21:14
2	180125G3_2	ST180125G3-1 PFC CS-3 537 18A2408	25-Jan-18	15:33:17
3	180125G3_3	ST180125G3-2 PFC CS-2 537 18A2409	25-Jan-18	15:45:40
4	180125G3_4	ST180125G3-3 PFC CS-1 537 18A2512	25-Jan-18	15:58:05
5	180125G3_5	ST180125G3-4 PFC CS0 537 18A2410	25-Jan-18	16:10:30
6	180125G3_6	ST180125G3-5 PFC CS1 537 18A2411	25-Jan-18	16:22:55
7	180125G3_7	ST180125G3-6 PFC CS2 537 18A2412	25-Jan-18	16:35:21
8	180125G3_8	ST180125G3-7 PFC CS3 537 18A2413	25-Jan-18	16:48:12
9	180125G3_9	ST180125G3-8 PFC CS4 537 18A2414	25-Jan-18	17:01:00
10	180125G3_10	ST180125G3-9 PFC CS5 537 18A2415	25-Jan-18	17:13:03
11	180125G3_11	IPA	25-Jan-18	17:25:21
12	180125G3_12	ICV180125G3-1 PFC ICV 537 18A2416	25-Jan-18	17:37:42
13	180125G3_13	IPA	25-Jan-18	17:50:03
14	180125G3_14	B8A0034-BLK1 LRB 0.25	25-Jan-18	18:02:31
15	180125G3_15	B8A0034-BS1 LFB 0.25	25-Jan-18	18:14:53
16	180125G3_16	1800019-04 REEPDW087FRB 0.25321	25-Jan-18	18:27:18
17	180125G3_17	IPA	25-Jan-18	18:39:43
18	180125G3_18	B8A0089-BS1 LFB 0.25	25-Jan-18	18:52:08
19	180125G3_19	1800085-01 IR54-PSW-VL101-17D 0.24531	25-Jan-18	19:04:33
20	180125G3_20	1800085-02 IR54-PSW-VL101D-17D 0.24722	25-Jan-18	19:16:58
21	180125G3_21	1800085-03 IR54-PSW-FB-17D 0.25105	25-Jan-18	19:29:23
22	180125G3_22	IPA	25-Jan-18	19:41:44
23	180125G3_23	B8A0075-BLK1 LRB 0.25	25-Jan-18	19:54:04
24	180125G3_24	B8A0075-BS1 LFB 0.25	25-Jan-18	20:06:25
25	180125G3_25	B8A0075-BSD1 LFBD 0.25	25-Jan-18	20:18:51
26	180125G3_26	1800059-01 REEPDW107 0.26968	25-Jan-18	20:31:15
27	180125G3_27	1800059-02 REEPDW108 0.27953	25-Jan-18	20:43:41
28	180125G3_28	1800059-03 REEPDW109 0.27971	25-Jan-18	20:56:06
29	180125G3_29	1800061-01 REEPDW107FRB 0.25079	25-Jan-18	21:08:32
30	180125G3_30	1800061-02 REEPDW108FRB 0.25557	25-Jan-18	21:20:57
31	180125G3_31	1800061-03 REEPDW109FRB 0.25894	25-Jan-18	21:33:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 26, 2018 11:31:07 Pacific Standard Time
Printed: Friday, January 26, 2018 11:31:52 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	180125G3_32	1800071-01 REEPDW110 0.27244	25-Jan-18	21:45:34
33	180125G3_33	1800071-02 REEPDW510 0.2906	25-Jan-18	21:58:00
34	180125G3_34	1800071-03@5X REEPDW111 0.27655	25-Jan-18	22:10:24
35	180125G3_35	1800071-03 REEPDW111 0.27655	25-Jan-18	22:22:50
36	180125G3_36	IPA	25-Jan-18	22:35:14
37	180125G3_37	ST180125G3-10 PFC CS2 537 18A2412	25-Jan-18	22:47:40
38	180125G3_38	IPA	25-Jan-18	23:00:04
39	180125G3_39	1800071-04 REEPDW112 0.27008	25-Jan-18	23:12:30
40	180125G3_40	1800071-05 REEPDW113 0.27248	25-Jan-18	23:24:54
41	180125G3_41	1800073-01 REEPDW110FRB 0.25764	25-Jan-18	23:37:19
42	180125G3_42	1800073-02 REEPDW111FRB 0.25603	25-Jan-18	23:49:40
43	180125G3_43	1800073-03 REEPDW112FRB 0.25986	26-Jan-18	00:01:58
44	180125G3_44	1800073-04 REEPDW113FRB 0.25986	26-Jan-18	00:14:21
45	180125G3_45	1800013-02 WI-CV-1RW23P-1217 0.26659	26-Jan-18	00:26:39
46	180125G3_46	1800043-01@10x REEPDW094 0.27915	26-Jan-18	00:39:05
47	180125G3_47	1800043-02 REEPDW095 0.27047	26-Jan-18	00:51:29
48	180125G3_48	1800043-08 @10xREEPDW509 0.27456	26-Jan-18	01:03:55
49	180125G3_49	1800043-09@5x REEPDW101 0.28336	26-Jan-18	01:16:20
50	180125G3_50	IPA	26-Jan-18	01:28:41
51	180125G3_51	ST180125G3-11 PFC CS4 537 18A2414	26-Jan-18	01:41:02
52	180125G3_52	IPA	26-Jan-18	01:53:25

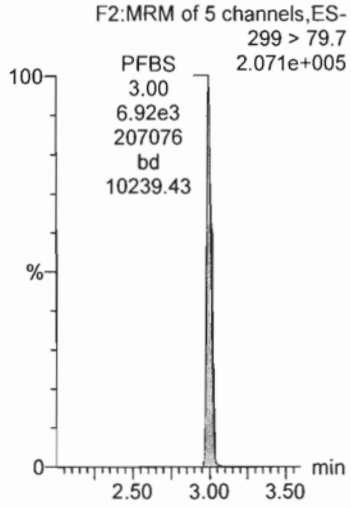
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-37.qld

Last Altered: Friday, January 26, 2018 11:05:49 Pacific Standard Time
Printed: Friday, January 26, 2018 11:08:39 Pacific Standard Time

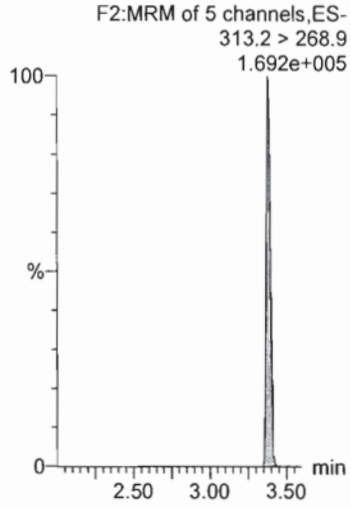
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_37, Date: 25-Jan-2018, Time: 22:47:40, ID: ST180125G3-10 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

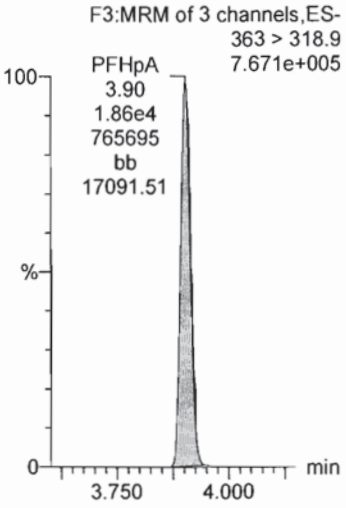
PFBS



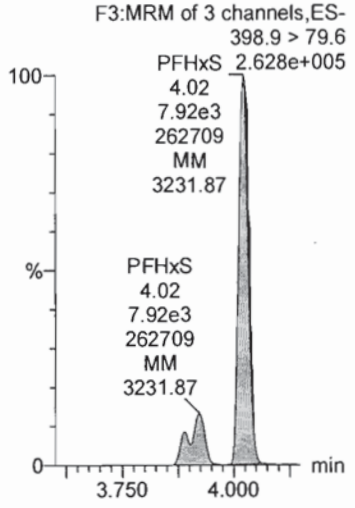
PFHxA



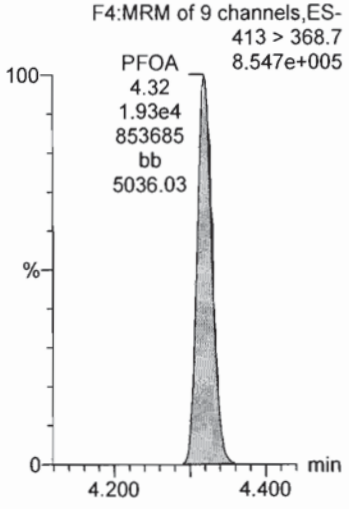
PFHpA



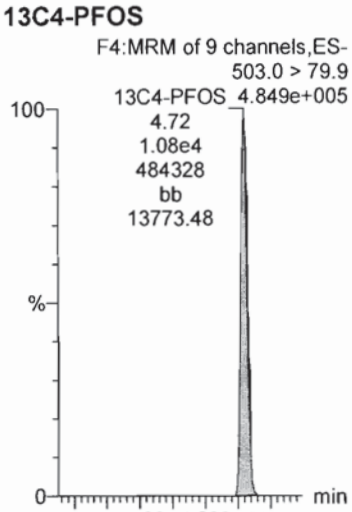
PFHxS



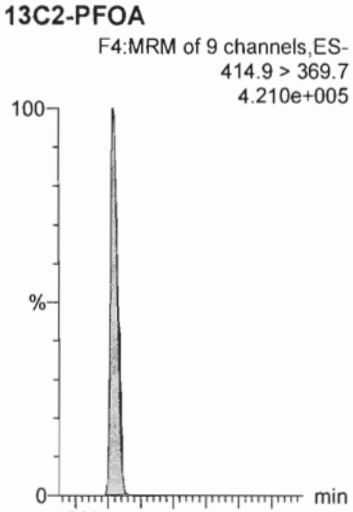
PFOA



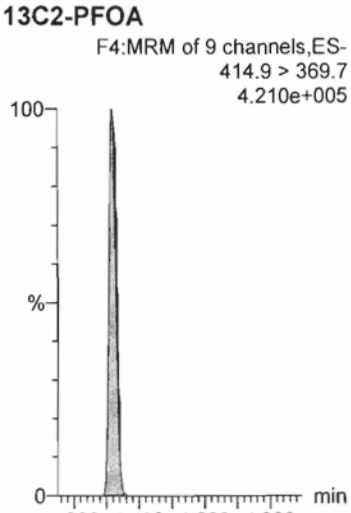
13C4-PFOS



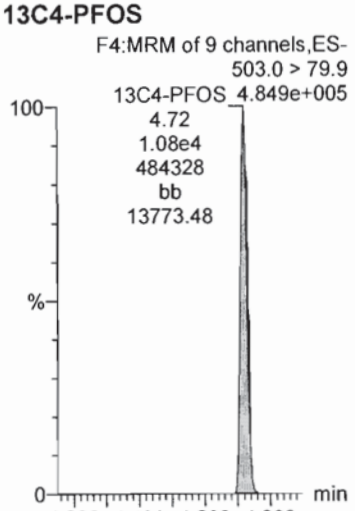
13C2-PFOA



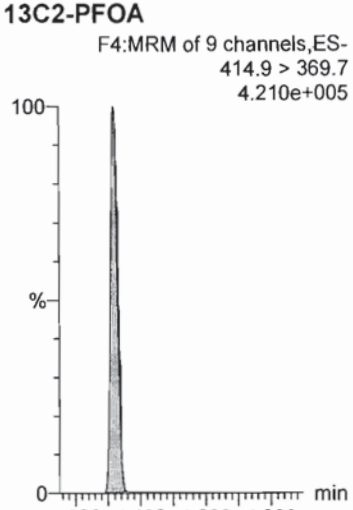
13C2-PFOA



13C4-PFOS



13C2-PFOA

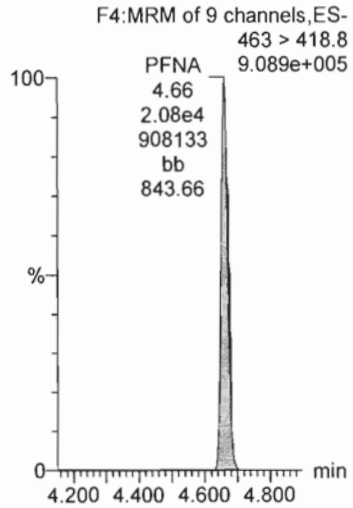


Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-37.qld

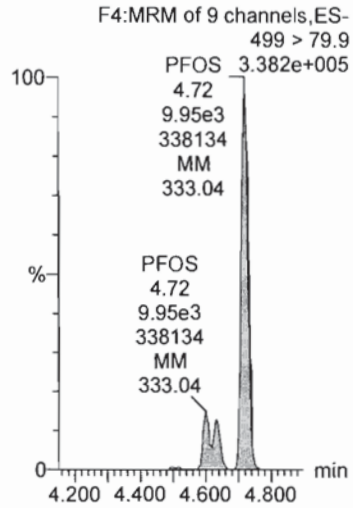
Last Altered: Friday, January 26, 2018 11:05:49 Pacific Standard Time
Printed: Friday, January 26, 2018 11:08:39 Pacific Standard Time

Name: 180125G3_37, Date: 25-Jan-2018, Time: 22:47:40, ID: ST180125G3-10 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

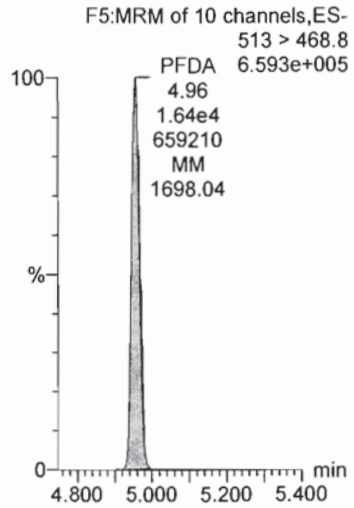
PFNA



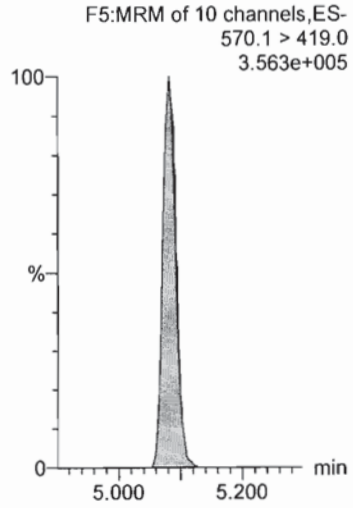
PFOS



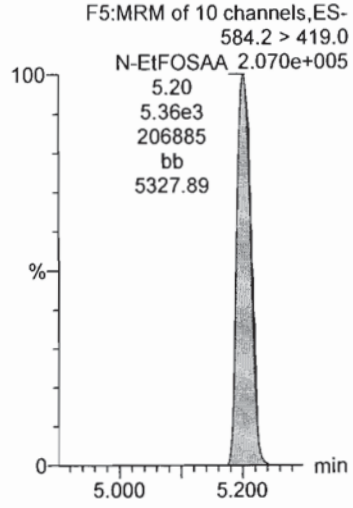
PFDA



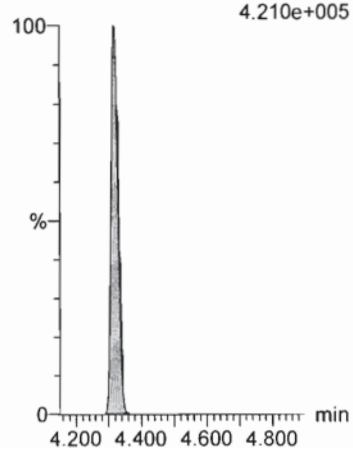
N-MeFOSAA



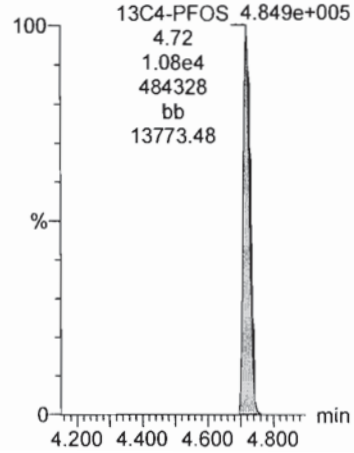
N-EtFOSAA



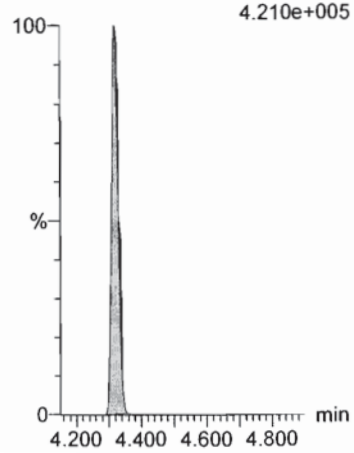
13C2-PFOA



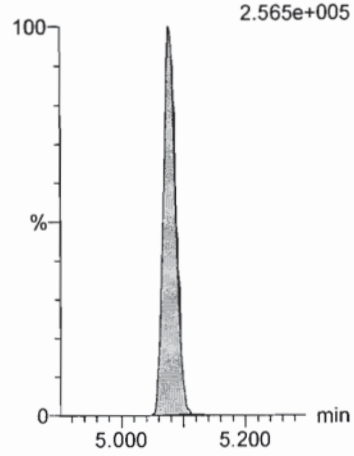
13C4-PFOS



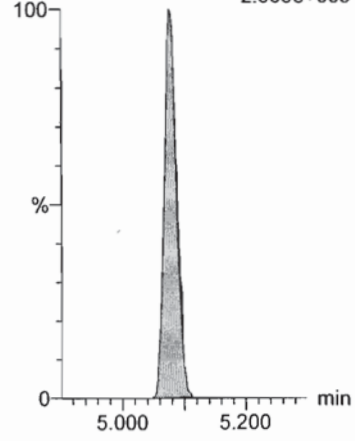
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA

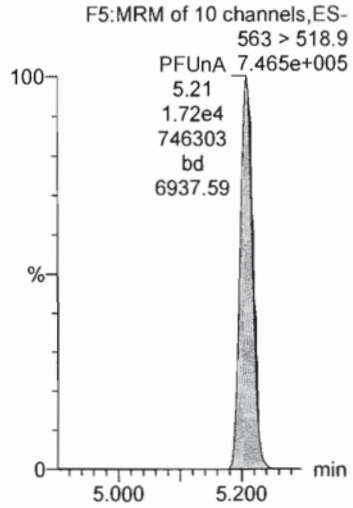


Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-37.qld

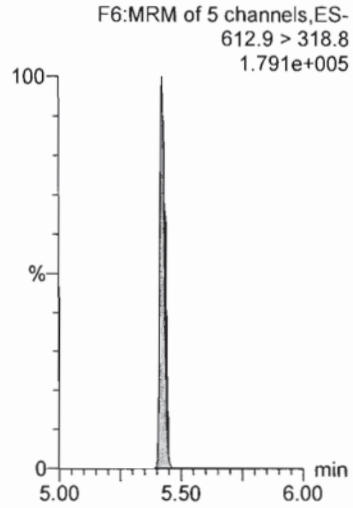
Last Altered: Friday, January 26, 2018 11:05:49 Pacific Standard Time
Printed: Friday, January 26, 2018 11:08:39 Pacific Standard Time

Name: 180125G3_37, Date: 25-Jan-2018, Time: 22:47:40, ID: ST180125G3-10 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

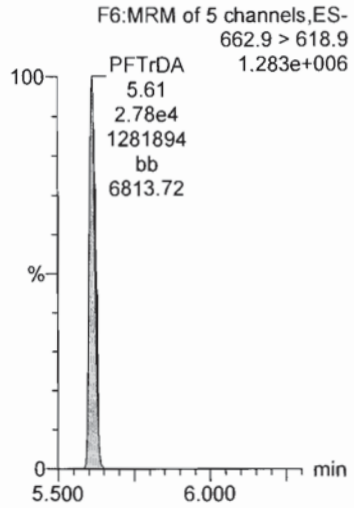
PFUnA



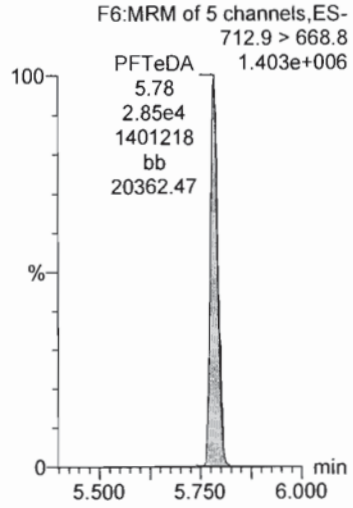
PFDoA



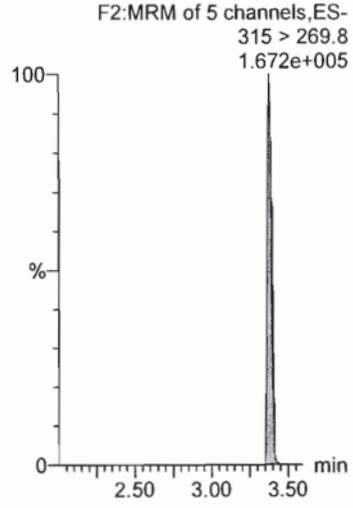
PFTrDA



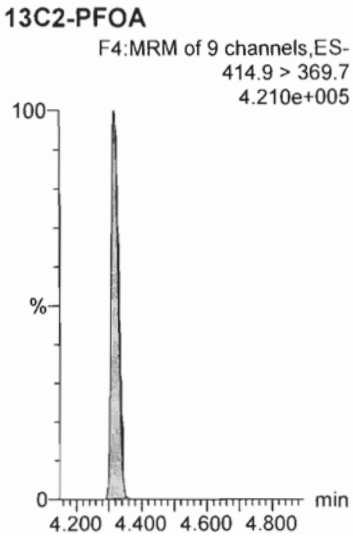
PFTeDA



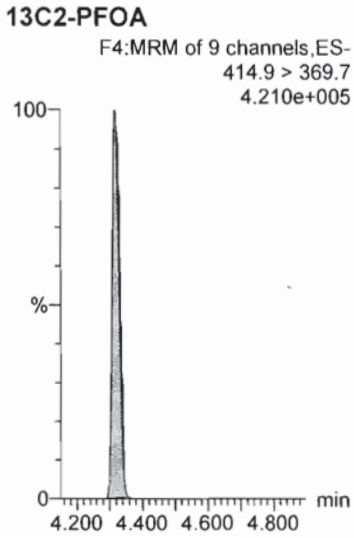
13C2-PFHxA



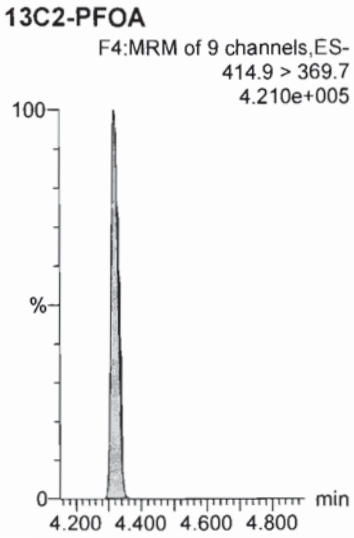
13C2-PFOA



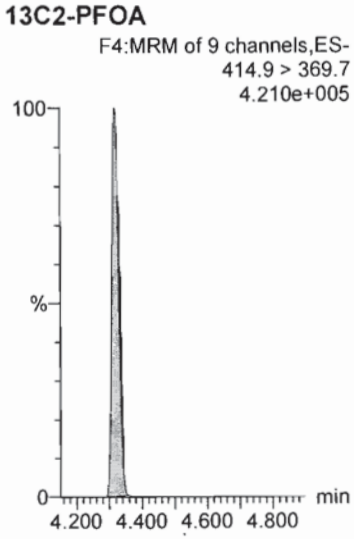
13C2-PFOA



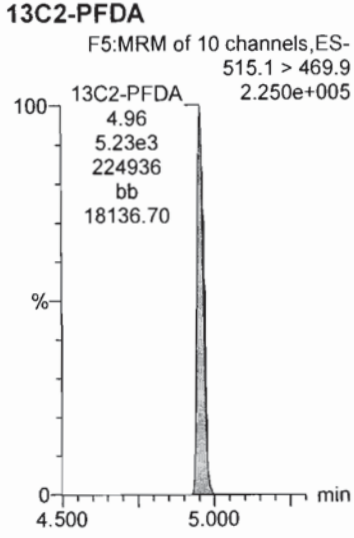
13C2-PFOA



13C2-PFOA



13C2-PFDA

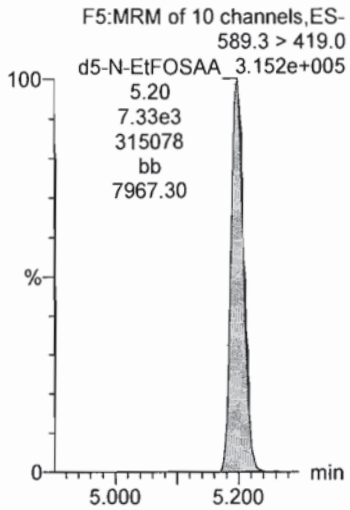


Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-37.qld

Last Altered: Friday, January 26, 2018 11:05:49 Pacific Standard Time
Printed: Friday, January 26, 2018 11:08:39 Pacific Standard Time

Name: 180125G3_37, Date: 25-Jan-2018, Time: 22:47:40, ID: ST180125G3-10 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

d5-N-EtFOSAA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time Rev'd: AMH 01/26/2018
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999741
Calibration curve: 0.82641 * 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	180114G2_2	Standard	0.443	3.02	122.240	9293.236	0.378	0.5	3.2	NO	1.000	NO	bb
2	2	180114G2_3	Standard	0.885	3.03	225.142	8633.023	0.748	0.9	2.3	NO	1.000	NO	bb
3	3	180114G2_4	Standard	1.770	3.02	479.740	9301.095	1.480	1.8	1.2	NO	1.000	NO	bb
4	4	180114G2_5	Standard	4.420	3.03	1148.506	9846.296	3.348	4.1	-8.4	NO	1.000	NO	bb
5	5	180114G2_6	Standard	8.850	3.03	2370.643	8997.394	7.562	9.2	3.4	NO	1.000	NO	bd
6	6	180114G2_7	Standard	22.100	3.02	5749.949	8920.589	18.499	22.4	1.3	NO	1.000	NO	bb
7	7	180114G2_8	Standard	44.200	3.03	10748.365	8371.866	36.847	44.6	0.9	NO	1.000	NO	bb
8	8	180114G2_9	Standard	66.300	3.03	15945.886	8335.439	54.904	66.4	0.2	NO	1.000	NO	bb
9	9	180114G2_10	Standard	88.400	3.03	21255.029	8426.012	72.397	87.6	-0.9	NO	1.000	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998261
Calibration curve: -4.32646e-005 * x^2 + 0.249616 * 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	180114G2_2	Standard	0.500	3.39	134.772	7270.992	0.185	0.7	48.5	NO	0.998	NO	bb
2	2	180114G2_3	Standard	1.000	3.39	227.340	7137.396	0.319	1.3	27.6	NO	0.998	NO	bb
3	3	180114G2_4	Standard	2.000	3.39	313.216	7332.093	0.427	1.7	-14.4	NO	0.998	NO	bb
4	4	180114G2_5	Standard	5.000	3.39	863.158	7006.645	1.232	4.9	-1.2	NO	0.998	NO	bb
5	5	180114G2_6	Standard	10.000	3.39	1777.500	6921.691	2.568	10.3	3.1	NO	0.998	NO	bb
6	6	180114G2_7	Standard	25.000	3.39	4310.332	7451.987	5.784	23.3	-6.9	NO	0.998	NO	bb
7	7	180114G2_8	Standard	50.000	3.39	8801.604	6957.298	12.651	51.1	2.3	NO	0.998	NO	bb
8	8	180114G2_9	Standard	75.000	3.39	12530.455	6679.484	18.760	76.2	1.5	NO	0.998	NO	MM
9	9	180114G2_10	Standard	100.000	3.39	15892.226	6545.588	24.279	99.0	-1.0	NO	0.998	NO	bb

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999308
Calibration curve: 0.877756 * 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	180114G2_2	Standard	0.500	3.91	306.996	7270.992	0.422	0.5	-3.8	NO	0.999	NO	bb
2	2	180114G2_3	Standard	1.000	3.92	653.758	7137.396	0.916	1.0	4.4	NO	0.999	NO	bb
3	3	180114G2_4	Standard	2.000	3.92	1241.200	7332.093	1.693	1.9	-3.6	NO	0.999	NO	bb
4	4	180114G2_5	Standard	5.000	3.92	3268.902	7006.645	4.665	5.3	6.3	NO	0.999	NO	bb
5	5	180114G2_6	Standard	10.000	3.92	6285.193	6921.691	9.080	10.3	3.5	NO	0.999	NO	bb
6	6	180114G2_7	Standard	25.000	3.92	16065.663	7451.987	21.559	24.6	-1.8	NO	0.999	NO	bd
7	7	180114G2_8	Standard	50.000	3.92	29205.398	6957.298	41.978	47.8	-4.4	NO	0.999	NO	bb
8	8	180114G2_9	Standard	75.000	3.92	44842.434	6679.484	67.135	76.5	2.0	NO	0.999	NO	bb
9	9	180114G2_10	Standard	100.000	3.92	57751.070	6545.588	88.229	100.5	0.5	NO	0.999	NO	bb

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998418
Calibration curve: 0.924814 * 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	180114G2_2	Standard	0.455	4.04	126.216	9293.236	0.390	0.4	-7.4	NO	0.998	NO	MM
2	2	180114G2_3	Standard	0.910	4.04	256.351	8633.023	0.852	0.9	1.3	NO	0.998	NO	MM
3	3	180114G2_4	Standard	1.820	4.05	499.051	9301.095	1.540	1.7	-8.5	NO	0.998	NO	MM
4	4	180114G2_5	Standard	4.560	4.04	1274.278	9846.296	3.714	4.0	-11.9	NO	0.998	NO	MM
5	5	180114G2_6	Standard	9.120	4.04	2495.347	8997.394	7.960	8.6	-5.6	NO	0.998	NO	MM
6	6	180114G2_7	Standard	22.800	4.05	6368.078	8920.589	20.488	22.2	-2.8	NO	0.998	NO	MM
7	7	180114G2_8	Standard	45.600	4.04	12573.643	8371.866	43.104	46.6	2.2	NO	0.998	NO	MM
8	8	180114G2_9	Standard	68.400	4.04	19232.744	8335.439	66.221	71.6	4.7	NO	0.998	NO	MM
9	9	180114G2_10	Standard	91.200	4.04	24128.867	8426.012	82.186	88.9	-2.6	NO	0.998	NO	MM

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998287
Calibration curve: 0.781315 * 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	180114G2_2	Standard	0.500	4.34	248.286	7270.992	0.341	0.4	-12.6	NO	0.998	NO	bb
2	2	180114G2_3	Standard	1.000	4.34	629.475	7137.396	0.882	1.1	12.9	NO	0.998	NO	bd
3	3	180114G2_4	Standard	2.000	4.33	1197.607	7332.093	1.633	2.1	4.5	NO	0.998	NO	bb
4	4	180114G2_5	Standard	5.000	4.34	3058.294	7006.645	4.365	5.6	11.7	NO	0.998	NO	bb
5	5	180114G2_6	Standard	10.000	4.34	5559.835	6921.691	8.032	10.3	2.8	NO	0.998	NO	bb
6	6	180114G2_7	Standard	25.000	4.34	13805.583	7451.987	18.526	23.7	-5.2	NO	0.998	NO	bd
7	7	180114G2_8	Standard	50.000	4.34	26112.586	6957.298	37.533	48.0	-3.9	NO	0.998	NO	bb
8	8	180114G2_9	Standard	75.000	4.33	38329.234	6679.484	57.384	73.4	-2.1	NO	0.998	NO	bb
9	9	180114G2_10	Standard	100.000	4.34	53076.070	6545.588	81.087	103.8	3.8	NO	0.998	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998977
Calibration curve: 0.817469 * 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	180114G2_2	Standard	0.500	4.68	318.618	7270.992	0.438	0.5	7.2	NO	0.999	NO	bb
2	2	180114G2_3	Standard	1.000	4.68	565.926	7137.396	0.793	1.0	-3.0	NO	0.999	NO	bb
3	3	180114G2_4	Standard	2.000	4.67	1052.970	7332.093	1.436	1.8	-12.2	NO	0.999	NO	bb
4	4	180114G2_5	Standard	5.000	4.67	3048.596	7006.645	4.351	5.3	6.5	NO	0.999	NO	bb
5	5	180114G2_6	Standard	10.000	4.68	5690.879	6921.691	8.222	10.1	0.6	NO	0.999	NO	bb
6	6	180114G2_7	Standard	25.000	4.68	13958.089	7451.987	18.731	22.9	-8.3	NO	0.999	NO	bb
7	7	180114G2_8	Standard	50.000	4.68	29013.211	6957.298	41.702	51.0	2.0	NO	0.999	NO	bd
8	8	180114G2_9	Standard	75.000	4.67	41192.633	6679.484	61.670	75.4	0.6	NO	0.999	NO	bd
9	9	180114G2_10	Standard	100.000	4.67	53770.277	6545.588	82.147	100.5	0.5	NO	0.999	NO	bb

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.998400
Calibration curve: 1.13555 * 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	180114G2_2	Standard	0.464	4.75	183.558	9293.236	0.567	0.5	7.6	NO	0.998	NO	MM
2	2	180114G2_3	Standard	0.925	4.74	336.473	8633.023	1.119	1.0	6.5	NO	0.998	NO	MM
3	3	180114G2_4	Standard	1.850	4.74	501.441	9301.095	1.547	1.4	-26.3	NO	0.998	NO	MM
4	4	180114G2_5	Standard	4.625	4.74	1589.975	9846.296	4.634	4.1	-11.8	NO	0.998	NO	MM
5	5	180114G2_6	Standard	9.250	4.74	3196.921	8997.394	10.198	9.0	-2.9	NO	0.998	NO	MM
6	6	180114G2_7	Standard	23.100	4.74	7634.577	8920.589	24.563	21.6	-6.4	NO	0.998	NO	MM
7	7	180114G2_8	Standard	46.200	4.74	15146.412	8371.866	51.924	45.7	-1.0	NO	0.998	NO	MM
8	8	180114G2_9	Standard	69.300	4.74	23399.545	8335.439	80.568	71.0	2.4	NO	0.998	NO	MM
9	9	180114G2_10	Standard	92.400	4.74	31304.379	8426.012	106.626	93.9	1.6	NO	0.998	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.998859
Calibration curve: -0.000966258 * x^2 + 0.759574 * 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	180114G2_2	Standard	0.500	4.98	329.989	7270.992	0.454	0.6	19.6	NO	0.999	NO	bb
2	2	180114G2_3	Standard	1.000	4.98	584.207	7137.396	0.819	1.1	7.9	NO	0.999	NO	bb
3	3	180114G2_4	Standard	2.000	4.98	1056.481	7332.093	1.441	1.9	-4.9	NO	0.999	NO	bb
4	4	180114G2_5	Standard	5.000	4.98	2873.781	7006.645	4.102	5.4	8.7	NO	0.999	NO	bb
5	5	180114G2_6	Standard	10.000	4.98	4857.587	6921.691	7.018	9.4	-6.5	NO	0.999	NO	bb
6	6	180114G2_7	Standard	25.000	4.98	13057.369	7451.987	17.522	23.8	-4.8	NO	0.999	NO	bb
7	7	180114G2_8	Standard	50.000	4.98	25342.545	6957.298	36.426	51.3	2.6	NO	0.999	NO	bb
8	8	180114G2_9	Standard	75.000	4.98	35162.762	6679.484	52.643	76.8	2.4	NO	0.999	NO	bb
9	9	180114G2_10	Standard	100.000	4.98	42728.926	6545.588	65.279	98.2	-1.8	NO	0.999	NO	bb

GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.996172
Calibration curve: 0.000753202 * x^2 + 2.06605 * 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	180114G2_2	Standard	0.500	5.10	119.196	4376.641	1.089	0.5	5.4	NO	0.996	NO	bbX
2	2	180114G2_3	Standard	1.000	5.12	175.964	4867.561	1.446	0.7	-30.0	NO	0.996	NO	MM
3	3	180114G2_4	Standard	2.000	5.11	442.142	5415.664	3.266	1.6	-21.0	NO	0.996	NO	bb
4	4	180114G2_5	Standard	5.000	5.11	986.274	4768.863	8.273	4.0	-20.0	NO	0.996	NO	bb
5	5	180114G2_6	Standard	10.000	5.11	2461.607	4945.121	19.911	9.6	-4.0	NO	0.996	NO	bb
6	6	180114G2_7	Standard	25.000	5.11	6895.600	4633.480	59.528	28.5	14.1	NO	0.996	NO	bb
7	7	180114G2_8	Standard	50.000	5.10	11935.933	4688.595	101.830	48.4	-3.1	NO	0.996	NO	bd
8	8	180114G2_9	Standard	75.000	5.11	19346.742	4824.405	160.407	75.6	0.7	NO	0.996	NO	MM
9	9	180114G2_10	Standard	100.000	5.11	23974.930	4496.842	213.260	99.6	-0.4	NO	0.996	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997954
Calibration curve: 1.443 * 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	180114G2_2	Standard	0.500	5.23	55.770	4376.641	0.510	0.4	-29.4	NO	0.998	NO	MMX
2	2	180114G2_3	Standard	1.000	5.23	141.698	4867.561	1.164	0.8	-19.3	NO	0.998	NO	MM
3	3	180114G2_4	Standard	2.000	5.23	340.101	5415.664	2.512	1.7	-13.0	NO	0.998	NO	MM
4	4	180114G2_5	Standard	5.000	5.23	956.382	4768.863	8.022	5.6	11.2	NO	0.998	NO	MM
5	5	180114G2_6	Standard	10.000	5.23	1823.759	4945.121	14.752	10.2	2.2	NO	0.998	NO	MM
6	6	180114G2_7	Standard	25.000	5.23	4198.832	4633.480	36.248	25.1	0.5	NO	0.998	NO	MM
7	7	180114G2_8	Standard	50.000	5.23	8817.621	4688.595	75.226	52.1	4.3	NO	0.998	NO	bb
8	8	180114G2_9	Standard	75.000	5.23	12332.249	4824.405	102.249	70.9	-5.5	NO	0.998	NO	bb
9	9	180114G2_10	Standard	100.000	5.23	16475.486	4496.842	146.552	101.6	1.6	NO	0.998	NO	bb

GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.997497
Calibration curve: 0.152407 * 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	180114G2_2	Standard	0.500	5.45	41.602	7270.992	0.057	0.4	-24.9	NO	0.997	NO	MM
2	2	180114G2_3	Standard	1.000	5.46	80.812	7137.396	0.113	0.7	-25.7	NO	0.997	NO	bb
3	3	180114G2_4	Standard	2.000	5.46	203.603	7332.093	0.278	1.8	-8.9	NO	0.997	NO	bb
4	4	180114G2_5	Standard	5.000	5.46	424.029	7006.645	0.605	4.0	-20.6	NO	0.997	NO	bb
5	5	180114G2_6	Standard	10.000	5.46	1014.570	6921.691	1.466	9.6	-3.8	NO	0.997	NO	bb
6	6	180114G2_7	Standard	25.000	5.46	2724.365	7451.987	3.656	24.0	-4.0	NO	0.997	NO	bd
7	7	180114G2_8	Standard	50.000	5.46	5068.812	6957.298	7.286	47.8	-4.4	NO	0.997	NO	bb
8	8	180114G2_9	Standard	75.000	5.46	7841.413	6679.484	11.740	77.0	2.7	NO	0.997	NO	bb
9	9	180114G2_10	Standard	100.000	5.46	10290.353	6545.588	15.721	103.2	3.2	NO	0.997	NO	bd

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.993494
Calibration curve: 0.763667 * 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	180114G2_2	Standard	0.500	5.24	209.032	7270.992	0.287	0.4	-24.7	NO	0.993	NO	MM
2	2	180114G2_3	Standard	1.000	5.23	503.941	7137.396	0.706	0.9	-7.5	NO	0.993	NO	bb
3	3	180114G2_4	Standard	2.000	5.24	1063.130	7332.093	1.450	1.9	-5.1	NO	0.993	NO	bb
4	4	180114G2_5	Standard	5.000	5.24	2653.217	7006.645	3.787	5.0	-0.8	NO	0.993	NO	bb
5	5	180114G2_6	Standard	10.000	5.24	5599.458	6921.691	8.090	10.6	5.9	NO	0.993	NO	bb
6	6	180114G2_7	Standard	25.000	5.24	11647.961	7451.987	15.631	20.5	-18.1	NO	0.993	NO	bb
7	7	180114G2_8	Standard	50.000	5.24	29003.500	6957.298	41.688	54.6	9.2	NO	0.993	NO	bd
8	8	180114G2_9	Standard	75.000	5.24	40058.723	6679.484	59.973	78.5	4.7	NO	0.993	NO	bd
9	9	180114G2_10	Standard	100.000	5.24	48066.480	6545.588	73.433	96.2	-3.8	NO	0.993	NO	bb

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999127
Calibration curve: 1.18882 * 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	180114G2_2	Standard	0.500	5.66	433.552	7270.992	0.596	0.5	0.3	NO	0.999	NO	bb
2	2	180114G2_3	Standard	1.000	5.66	882.811	7137.396	1.237	1.0	4.0	NO	0.999	NO	bb
3	3	180114G2_4	Standard	2.000	5.66	1698.913	7332.093	2.317	1.9	-2.5	NO	0.999	NO	bb
4	4	180114G2_5	Standard	5.000	5.66	3941.729	7006.645	5.626	4.7	-5.4	NO	0.999	NO	bd
5	5	180114G2_6	Standard	10.000	5.66	8491.107	6921.691	12.267	10.3	3.2	NO	0.999	NO	bd
6	6	180114G2_7	Standard	25.000	5.66	20549.088	7451.987	27.575	23.2	-7.2	NO	0.999	NO	bb
7	7	180114G2_8	Standard	50.000	5.66	41705.898	6957.298	59.946	50.4	0.8	NO	0.999	NO	bb
8	8	180114G2_9	Standard	75.000	5.66	58906.910	6679.484	88.191	74.2	-1.1	NO	0.999	NO	bd
9	9	180114G2_10	Standard	100.000	5.66	79491.430	6545.588	121.443	102.2	2.2	NO	0.999	NO	bd

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998282
Calibration curve: 1.13384 * 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	180114G2_2	Standard	0.500	5.82	414.954	7270.992	0.571	0.5	0.7	NO	0.998	NO	bb
2	2	180114G2_3	Standard	1.000	5.83	782.897	7137.396	1.097	1.0	-3.3	NO	0.998	NO	bb
3	3	180114G2_4	Standard	2.000	5.82	1730.498	7332.093	2.360	2.1	4.1	NO	0.998	NO	bb
4	4	180114G2_5	Standard	5.000	5.82	4063.844	7006.645	5.800	5.1	2.3	NO	0.998	NO	db
5	5	180114G2_6	Standard	10.000	5.83	7304.762	6921.691	10.553	9.3	-6.9	NO	0.998	NO	bb
6	6	180114G2_7	Standard	25.000	5.83	18824.959	7451.987	25.262	22.3	-10.9	NO	0.998	NO	bb
7	7	180114G2_8	Standard	50.000	5.83	40609.207	6957.298	58.369	51.5	3.0	NO	0.998	NO	bb
8	8	180114G2_9	Standard	75.000	5.83	56779.543	6679.484	85.006	75.0	-0.0	NO	0.998	NO	bd
9	9	180114G2_10	Standard	100.000	5.82	75547.563	6545.588	115.418	101.8	1.8	NO	0.998	NO	bb

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: 13C2-PFHxA
Response Factor: 0.517306
RRF SD: 0.020799, Relative SD: 4.02063
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	180114G2_2	Standard	10.000	3.39	3828.283	7270.992	5.265	10.2	1.8	NO		NO	bd
2	2	180114G2_3	Standard	10.000	3.39	3732.242	7137.396	5.229	10.1	1.1	NO		NO	bb
3	3	180114G2_4	Standard	10.000	3.39	3732.909	7332.093	5.091	9.8	-1.6	NO		NO	bb
4	4	180114G2_5	Standard	10.000	3.39	3641.730	7006.645	5.198	10.0	0.5	NO		NO	bb
5	5	180114G2_6	Standard	10.000	3.39	3767.847	6921.691	5.444	10.5	5.2	NO		NO	bb
6	6	180114G2_7	Standard	10.000	3.39	3485.918	7451.987	4.678	9.0	-9.6	NO		NO	bd
7	7	180114G2_8	Standard	10.000	3.39	3633.532	6957.298	5.223	10.1	1.0	NO		NO	bb
8	8	180114G2_9	Standard	10.000	3.39	3508.206	6679.484	5.252	10.2	1.5	NO		NO	bb
9	9	180114G2_10	Standard	10.000	3.39	3389.493	6545.588	5.178	10.0	0.1	NO		NO	bb

Compound name: 13C2-PFDA
Response Factor: 0.542593
RRF SD: 0.0343482, Relative SD: 6.33038
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	180114G2_2	Standard	10.000	4.98	4152.583	7270.992	5.711	10.5	5.3	NO		NO	bd
2	2	180114G2_3	Standard	10.000	4.98	3676.311	7137.396	5.151	9.5	-5.1	NO		NO	bb
3	3	180114G2_4	Standard	10.000	4.98	3605.385	7332.093	4.917	9.1	-9.4	NO		NO	bb
4	4	180114G2_5	Standard	10.000	4.98	3889.101	7006.645	5.551	10.2	2.3	NO		NO	bd
5	5	180114G2_6	Standard	10.000	4.98	3771.219	6921.691	5.448	10.0	0.4	NO		NO	bb
6	6	180114G2_7	Standard	10.000	4.98	3814.786	7451.987	5.119	9.4	-5.7	NO		NO	bb
7	7	180114G2_8	Standard	10.000	4.98	3643.542	6957.298	5.237	9.7	-3.5	NO		NO	bb
8	8	180114G2_9	Standard	10.000	4.98	3979.337	6679.484	5.958	11.0	9.8	NO		NO	bb
9	9	180114G2_10	Standard	10.000	4.98	3758.124	6545.588	5.741	10.6	5.8	NO		NO	bb

GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: d5-N-EtFOSAA
Response Factor: 1.08111
RRF SD: 0.101841, Relative SD: 9.42
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	180114G2_2	Standard	40.000	5.23	5534.797	4376.641	50.585	46.8	17.0	NO		NO	bdX
2	2	180114G2_3	Standard	40.000	5.23	5589.896	4867.561	45.936	42.5	6.2	NO		NO	bb
3	3	180114G2_4	Standard	40.000	5.23	5039.321	5415.664	37.220	34.4	-13.9	NO		NO	bb
4	4	180114G2_5	Standard	40.000	5.23	6031.322	4768.863	50.589	46.8	17.0	NO		NO	bb
5	5	180114G2_6	Standard	40.000	5.23	5490.659	4945.121	44.413	41.1	2.7	NO		NO	bb
6	6	180114G2_7	Standard	40.000	5.23	4888.955	4633.480	42.205	39.0	-2.4	NO		NO	bb
7	7	180114G2_8	Standard	40.000	5.23	5208.773	4688.595	44.438	41.1	2.8	NO		NO	bb
8	8	180114G2_9	Standard	40.000	5.22	4828.757	4824.405	40.036	37.0	-7.4	NO		NO	bb
9	9	180114G2_10	Standard	40.000	5.23	4622.573	4496.842	41.118	38.0	-4.9	NO		NO	bb

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	180114G2_2	Standard	10.000	4.33	7270.992	7270.992	10.000	10.0	0.0	NO		NO	bd
2	2	180114G2_3	Standard	10.000	4.33	7137.396	7137.396	10.000	10.0	0.0	NO		NO	bb
3	3	180114G2_4	Standard	10.000	4.33	7332.093	7332.093	10.000	10.0	0.0	NO		NO	bd
4	4	180114G2_5	Standard	10.000	4.34	7006.645	7006.645	10.000	10.0	0.0	NO		NO	bb
5	5	180114G2_6	Standard	10.000	4.34	6921.691	6921.691	10.000	10.0	0.0	NO		NO	bb
6	6	180114G2_7	Standard	10.000	4.34	7451.987	7451.987	10.000	10.0	0.0	NO		NO	bb
7	7	180114G2_8	Standard	10.000	4.33	6957.298	6957.298	10.000	10.0	0.0	NO		NO	bd
8	8	180114G2_9	Standard	10.000	4.34	6679.484	6679.484	10.000	10.0	0.0	NO		NO	bb
9	9	180114G2_10	Standard	10.000	4.34	6545.588	6545.588	10.000	10.0	0.0	NO		NO	bb

GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 1.41526e-016, Relative SD: 1.41526e-014
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	180114G2_2	Standard	28.700	4.74	9293.236	9293.236	28.700	28.7	0.0	NO		NO	bb
2	2	180114G2_3	Standard	28.700	4.74	8633.023	8633.023	28.700	28.7	0.0	NO		NO	bb
3	3	180114G2_4	Standard	28.700	4.74	9301.095	9301.095	28.700	28.7	0.0	NO		NO	bb
4	4	180114G2_5	Standard	28.700	4.74	9846.296	9846.296	28.700	28.7	0.0	NO		NO	bb
5	5	180114G2_6	Standard	28.700	4.74	8997.394	8997.394	28.700	28.7	0.0	NO		NO	bb
6	6	180114G2_7	Standard	28.700	4.74	8920.589	8920.589	28.700	28.7	0.0	NO		NO	MM
7	7	180114G2_8	Standard	28.700	4.74	8371.866	8371.866	28.700	28.7	0.0	NO		NO	MM
8	8	180114G2_9	Standard	28.700	4.74	8335.439	8335.439	28.700	28.7	0.0	NO		NO	bb
9	9	180114G2_10	Standard	28.700	4.74	8426.012	8426.012	28.700	28.7	0.0	NO		NO	bb

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	180114G2_2	Standard	40.000	5.10	4376.641	4376.641	40.000	40.0	0.0	NO		NO	MMX
2	2	180114G2_3	Standard	40.000	5.10	4867.561	4867.561	40.000	40.0	0.0	NO		NO	MM
3	3	180114G2_4	Standard	40.000	5.10	5415.664	5415.664	40.000	40.0	0.0	NO		NO	bb
4	4	180114G2_5	Standard	40.000	5.10	4768.863	4768.863	40.000	40.0	0.0	NO		NO	MM
5	5	180114G2_6	Standard	40.000	5.10	4945.121	4945.121	40.000	40.0	0.0	NO		NO	bb
6	6	180114G2_7	Standard	40.000	5.10	4633.480	4633.480	40.000	40.0	0.0	NO		NO	bd
7	7	180114G2_8	Standard	40.000	5.10	4688.595	4688.595	40.000	40.0	0.0	NO		NO	bb
8	8	180114G2_9	Standard	40.000	5.10	4824.405	4824.405	40.000	40.0	0.0	NO		NO	bd
9	9	180114G2_10	Standard	40.000	5.10	4496.842	4496.842	40.000	40.0	0.0	NO		NO	bb

GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:36:29 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBS	0.9997	NO	
2	2	PFHxA	0.9983	NO	
3	3	PFHpA	0.9993	NO	
4	4	PFHxS	0.9984	NO	
5	5	PFOA	0.9983	NO	
6	6	PFNA	0.9990	NO	
7	7	PFOS	0.9984	NO	
8	8	PFDA	0.9989	NO	
9	9	N-MeFOSAA	0.9962	NO	
10	10	N-EtFOSAA	0.9980	NO	
11	11	PFDoA	0.9975	NO	
12	12	PFUnA	0.9935	NO	
13	13	PFTrDA	0.9991	NO	
14	14	PFTeDA	0.9983	NO	
15	15	13C2-PFHxA		NO	4.021
16	16	13C2-PFDA		NO	6.330
17	17	d5-N-EtFOSAA		NO	9.420
18	18	13C2-PFOA		NO	0.000
19	19	13C4-PFOS		NO	0.000
20	20	d3-N-MeFOSAA		NO	0.000
21	21	Total PFOA		NO	8.070
22	22	Total PFOS		NO	10.905
23	23	Total PFOA+PFOS		NO	6.261

GM 1/26/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 26, 2018 10:38:38 Pacific Standard Time
Printed: Friday, January 26, 2018 10:38:54 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180114G2_1	IPA	14-Jan-18	17:02:18
2	180114G2_2	ST180114G2-1 PFC CS-3 537 18A1201	14-Jan-18	17:15:00
3	180114G2_3	ST180114G2-2 PFC CS-2 537 18A1202	14-Jan-18	17:27:26
4	180114G2_4	ST180114G2-3 PFC CS-1 537 18A1203	14-Jan-18	17:39:52
5	180114G2_5	ST180114G2-4 PFC CS0 537 18A1204	14-Jan-18	17:52:19
6	180114G2_6	ST180114G2-5 PFC CS1 537 18A1205	14-Jan-18	18:04:46
7	180114G2_7	ST180114G2-6 PFC CS2 537 18A1206	14-Jan-18	18:17:14
8	180114G2_8	ST180114G2-7 PFC CS3 537 18A1207	14-Jan-18	18:29:38
9	180114G2_9	ST180114G2-8 PFC CS4 537 18A1208	14-Jan-18	18:42:03
10	180114G2_10	ST180114G2-9 PFC CS5 537 18A1209	14-Jan-18	18:54:27
11	180114G2_11	IPA	14-Jan-18	19:06:53
12	180114G2_12	ICV180114G2-1 PFC ICV 537 18A1210	14-Jan-18	19:19:20

GM 1/26/2018

Quantify Compound Summary Report

HIGH	7451.987	RPD
LOW	6545.588	12.95

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1	ST180114G2-1 PFC CS-3 537 18A1201	180114G2_	Standard	10	4.33	7270.992	7270.99	10	bd
2	ST180114G2-2 PFC CS-2 537 18A1202	180114G2_	Standard	10	4.33	7137.396	7137.40	10	bb
3	ST180114G2-3 PFC CS-1 537 18A1203	180114G2_	Standard	10	4.33	7332.093	7332.09	10	bd
4	ST180114G2-4 PFC CS0 537 18A1204	180114G2_	Standard	10	4.34	7006.645	7006.65	10	bb
5	ST180114G2-5 PFC CS1 537 18A1205	180114G2_	Standard	10	4.34	6921.691	6921.69	10	bb
6	ST180114G2-6 PFC CS2 537 18A1206	180114G2_	Standard	10	4.34	7451.987	7451.99	10	bb
7	ST180114G2-7 PFC CS3 537 18A1207	180114G2_	Standard	10	4.33	6957.298	6957.30	10	bd
8	ST180114G2-8 PFC CS4 537 18A1208	180114G2_	Standard	10	4.34	6679.484	6679.48	10	bb
9	ST180114G2-9 PFC CS5 537 18A1209	180114G2_	Standard	10	4.34	6545.588	6545.59	10	bb
							AVERAGE		
							7033.69		

Printed Mon Jan 15 07:46:06 2018

HIGH	9846.30	RPD
LOW	8335.44	16.62

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1	ST180114G2-1 PFC CS-3 537 18A1201	180114G2_	Standard	28.7	4.74	9293.236	9293.24	28.7	bb
2	ST180114G2-2 PFC CS-2 537 18A1202	180114G2_	Standard	28.7	4.74	8633.023	8633.02	28.7	bb
3	ST180114G2-3 PFC CS-1 537 18A1203	180114G2_	Standard	28.7	4.74	9301.095	9301.10	28.7	bb
4	ST180114G2-4 PFC CS0 537 18A1204	180114G2_	Standard	28.7	4.74	9846.296	9846.30	28.7	bb
5	ST180114G2-5 PFC CS1 537 18A1205	180114G2_	Standard	28.7	4.74	8997.394	8997.39	28.7	bb
6	ST180114G2-6 PFC CS2 537 18A1206	180114G2_	Standard	28.7	4.74	8921.57	8921.57	28.7	bb
7	ST180114G2-7 PFC CS3 537 18A1207	180114G2_	Standard	28.7	4.74	8362.585	8362.59	28.7	bb
8	ST180114G2-8 PFC CS4 537 18A1208	180114G2_	Standard	28.7	4.74	8335.439	8335.44	28.7	bb
9	ST180114G2-9 PFC CS5 537 18A1209	180114G2_	Standard	28.7	4.74	8426.012	8426.01	28.7	bb
							AVERAGE		
							8901.85		

GM 1/26/2018

Printed Mon Jan 15 07:46:31 2018

HIGH	5415.66	RPD
LOW	4496.84	18.54

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1	ST180114G2-1 PFC CS-3 537 18A1201	180114G2_	Standard	40	5.1	4369.841	4369.84	40	bbX
2	ST180114G2-2 PFC CS-2 537 18A1202	180114G2_	Standard	40	5.1	4862.716	4862.72	40	bb
3	ST180114G2-3 PFC CS-1 537 18A1203	180114G2_	Standard	40	5.1	5415.664	5415.66	40	bb
4	ST180114G2-4 PFC CS0 537 18A1204	180114G2_	Standard	40	5.1	4762.651	4762.65	40	bd
5	ST180114G2-5 PFC CS1 537 18A1205	180114G2_	Standard	40	5.1	4945.121	4945.12	40	bb
6	ST180114G2-6 PFC CS2 537 18A1206	180114G2_	Standard	40	5.1	4633.48	4633.48	40	bd
7	ST180114G2-7 PFC CS3 537 18A1207	180114G2_	Standard	40	5.1	4688.595	4688.60	40	bb
8	ST180114G2-8 PFC CS4 537 18A1208	180114G2_	Standard	40	5.1	4824.405	4824.41	40	bd
9	ST180114G2-9 PFC CS5 537 18A1209	180114G2_	Standard	40	5.1	4496.842	4496.84	40	bb
							AVERAGE		
							4828.68		

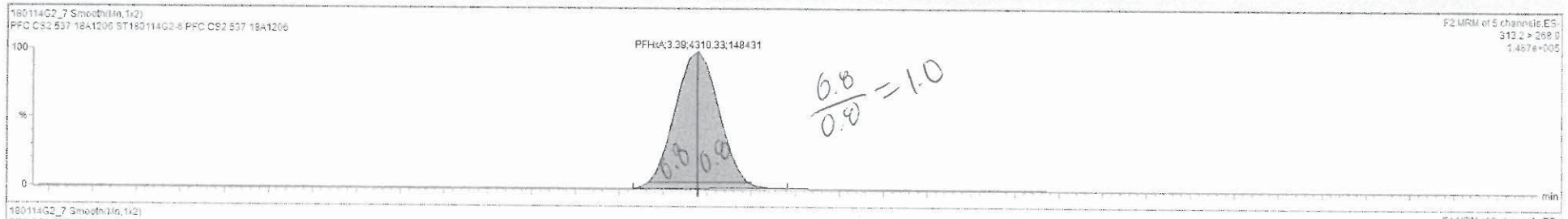
GM 1/26/2018

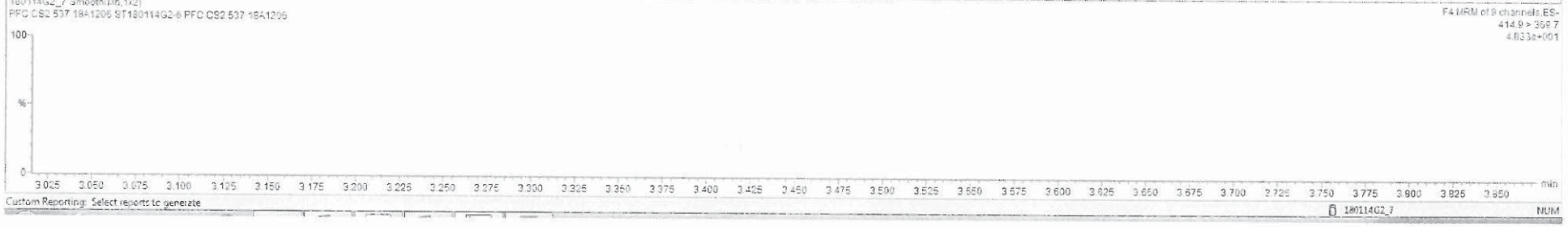
TargetLynx XS - 180114G2-CRV_totals.qld - [Chromatogram]

File Edit View Display Processing Window Help

180114G2_7 - ST180114G2-6 PFC CS2 537 18A1206 - PFC CS2 537 18A1206

	Name	Conc	DL	%Rec	EMPC	Area Resp	RR	RT	#	IS#	RA	Y/N	RRT	Acq Date	Acq Time	1st Chl Noise	ID	Sample Text	Factor1	Wt1	Cal File	>MDL
1	PFBS	22.954975	0.00308	101.2		5.750e3		3.02	1	19			0.636	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
2	PFHxA	23.286097	0.00540	52.1		4.310e3		3.39	2	19			0.785	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
3	PFHpA	24.561396	0.00858	98.2		1.807e4		3.92	3	19			0.904	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
4	PFHxS	22.153430	0.0246	57.2		6.368e3		4.05	4	19			0.854	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
5	PFOA	23.711256	0.0420	94.6		1.281e4		4.34	5	19			1.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
6	PFNA	22.913046	0.0456	91.7		1.356e4		4.68	6	19			1.078	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
7	PFOS	21.830548	0.00607	92.6		7.635e3		4.74	7	19			0.956	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
8	PFDA	22.788035	0.0444	95.2		1.306e4		4.99	8	19			1.148	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
9	N-MeFOSAA	28.518284	0.00626	114.1		6.898e3		5.11	9	20			1.001	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
10	N-EtFOSAA	25.115662	0.00235	100.5		4.199e3		5.23	10	20			1.025	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
11	PFDoA	23.967736	0.00522	96.0		2.724e3		5.48	11	19			1.259	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
12	PFUnA	23.467913	0.0287	93.9		1.185e4		5.24	12	19			1.208	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
13	PFTrDA	23.196563	0.00703	92.8		2.055e4		5.56	13	19			1.304	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
14	PFTeDA	22.279784	0.0123	89.1		1.882e4		5.82	14	19			1.343	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
15	13C2-PFHxA	9.6426960	0.00327	90.4		3.496e3	0.517	3.39	15	19			0.783	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
16	13C2-PFDA	9.4346864	0.000835	94.2		3.815e3	0.543	4.99	16	19			1.148	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
17	d5-N-EtFOSAA	39.036933	0.0331	97.5		4.988e3	1.001	5.23	17	20			1.026	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
18	13C2-PFOA	19.000000	0.00130	100.0		7.452e3	1.000	4.34	18	19			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
19	13C4-PFOS	38.700000	0.0220	100.0		8.921e3	1.000	4.74	19	19			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0268	100.0		4.631e3	1.000	5.10	20	20			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
21	Total PFOA	23.711256	0.0420				0.792		21					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		
22	Total PFOS	21.830548	0.00607				1.097		22					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		
23	Total PFOA+PFOS	45.541803	0.0484				0.946		23					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		



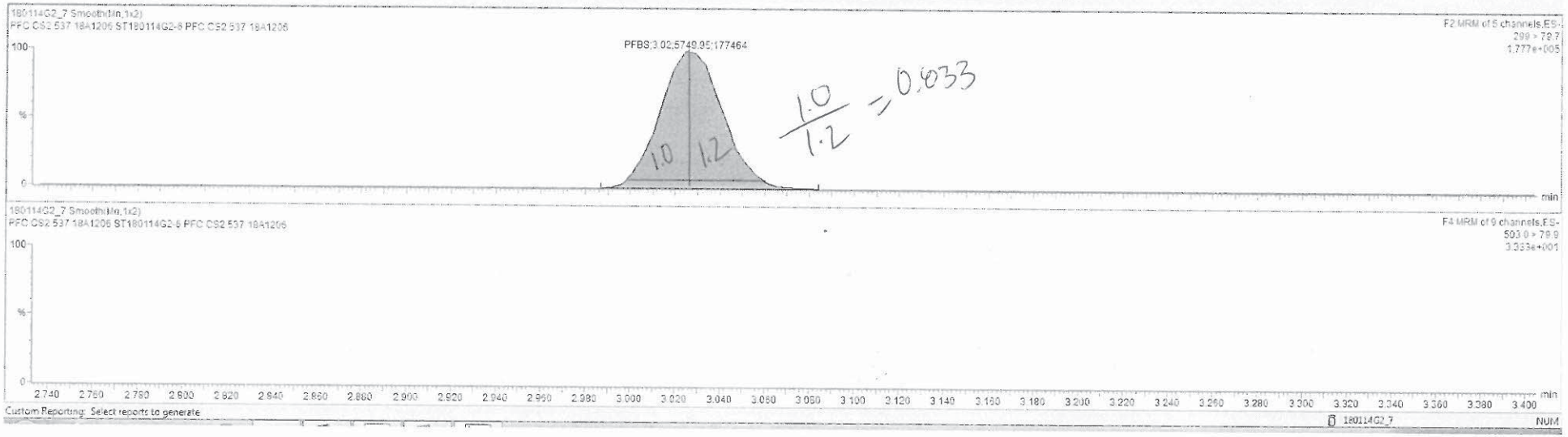


TargetLynx XS - 180114G2-CRV_totals.qld - [Chromatogram]

File Edit View Display Processing Window Help

180114G2_7 - ST180114G2-6 PFC CS2 537 18A1206 - PFC CS2 537 18A1206

	Name	Conc	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq.Date	Acq.Time	1st Chr/Nolse	ID	Sample Text	Factor1	Syn	CalFile	>MDL
1	PFBS	22.384975	0.00326	101.3		5.750e3		3.02	1	19			0.638	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
2	PFHxA	22.266907	0.00640	92.1		4.310e3		3.39	2	18			0.783	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
3	PFHpA	24.561387	0.00858	99.2		1.607e4		3.93	3	18			0.904	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
4	PFHxS	22.153490	0.0245	97.2		6.388e3		4.05	4	19			0.854	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
5	PFOA	23.711356	0.0420	94.8		1.381e4		4.34	5	18			1.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
6	PFNA	22.913048	0.0458	91.7		1.299e4		4.68	6	18			1.078	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
7	PFOS	21.636546	0.00637	92.6		7.835e3		4.74	7	19			0.999	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
8	PFDA	23.788035	0.0444	95.2		1.306e4		4.98	8	18			1.148	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
9	N-MeFOSAA	28.516204	0.00625	114.1		6.986e3		5.11	9	20			1.001	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
10	N-EtFOSAA	25.119802	0.00894	100.5		4.199e3		5.23	10	20			1.025	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
11	PFDoA	23.967736	0.00922	96.0		2.724e3		5.46	11	18			1.259	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
12	PFUnA	23.457813	0.0287	81.9		1.165e4		5.24	12	18			1.208	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
13	PFTrDA	23.195563	0.00733	92.8		2.055e4		5.58	13	18			1.204	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
14	PFTeDA	22.279784	0.0123	68.1		1.632e4		5.80	14	18			1.343	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		YES
15	13C2-PFHxA	9.6428560	0.00307	90.4		3.486e3	0.517	3.39	15	18			0.783	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
16	13C2-PFDA	9.4340084	0.000858	94.3		3.815e3	0.542	4.98	16	18			1.148	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
17	d5-N-EtFOSAA	39.038910	0.0231	97.6		4.689e3	1.061	5.21	17	20			1.025	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
18	13C2-PFOA	10.000000	0.00130	100.0		7.452e3	1.000	4.34	18	18			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
19	13C4-PFOS	38.700000	0.0226	180.0		8.921e3	1.000	4.74	19	19			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
20	d3-N-MeFOSAA	40.000000	0.0366	160.0		4.653e3	1.000	5.12	20	20			0.000	14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		NO
21	Total PFDA	23.711356	0.0420				0.792		21					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		
22	Total PFOS	21.636546	0.00637				1.097		22					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		
23	Total PFOA+PFOS	45.341901	0.0484				0.845		23					14-Jan-18	18:17:14		ST180114G...	PFC CS2 537 18...	1.0	1.00		

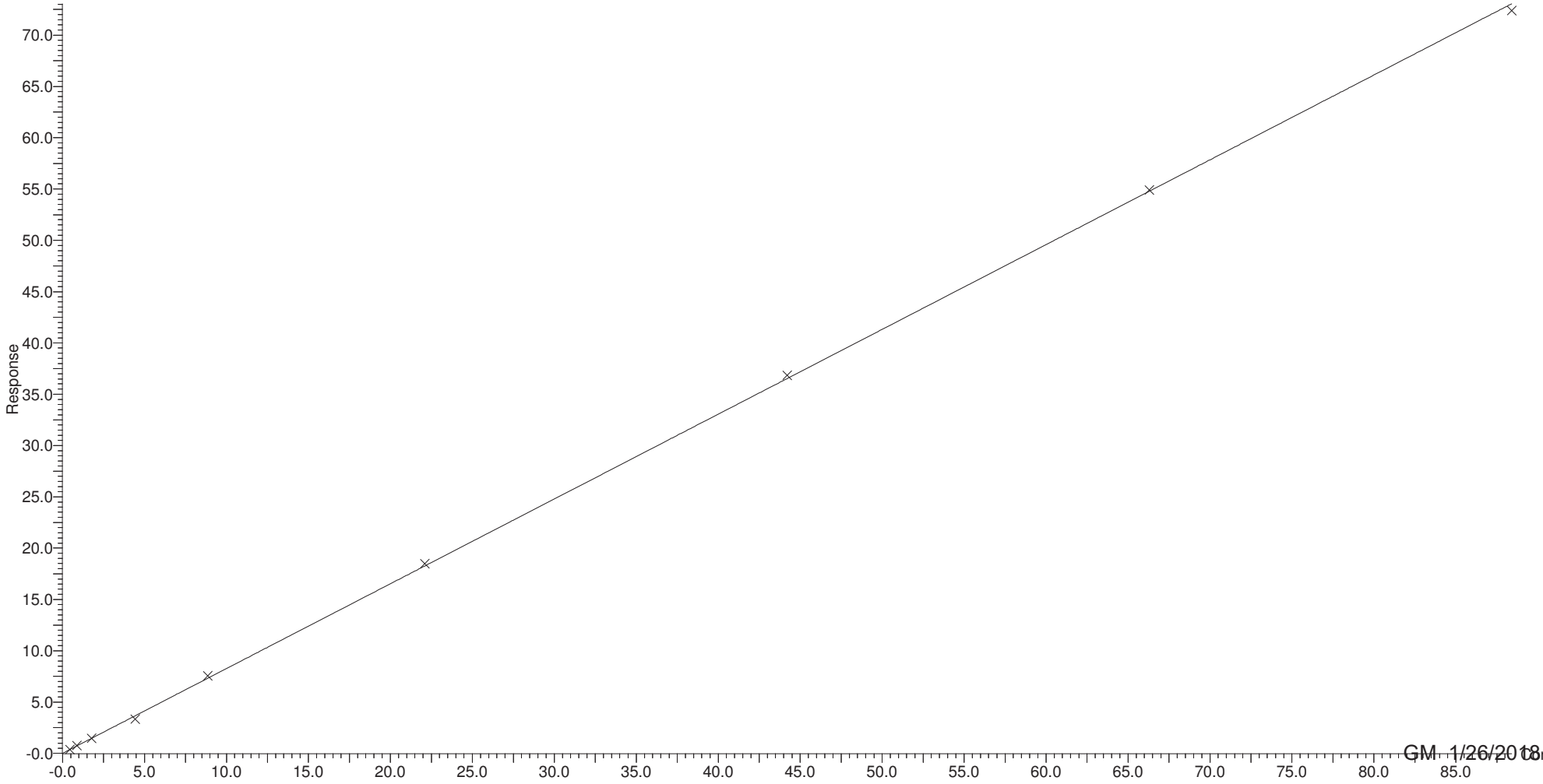


Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999741
Calibration curve: 0.82641 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

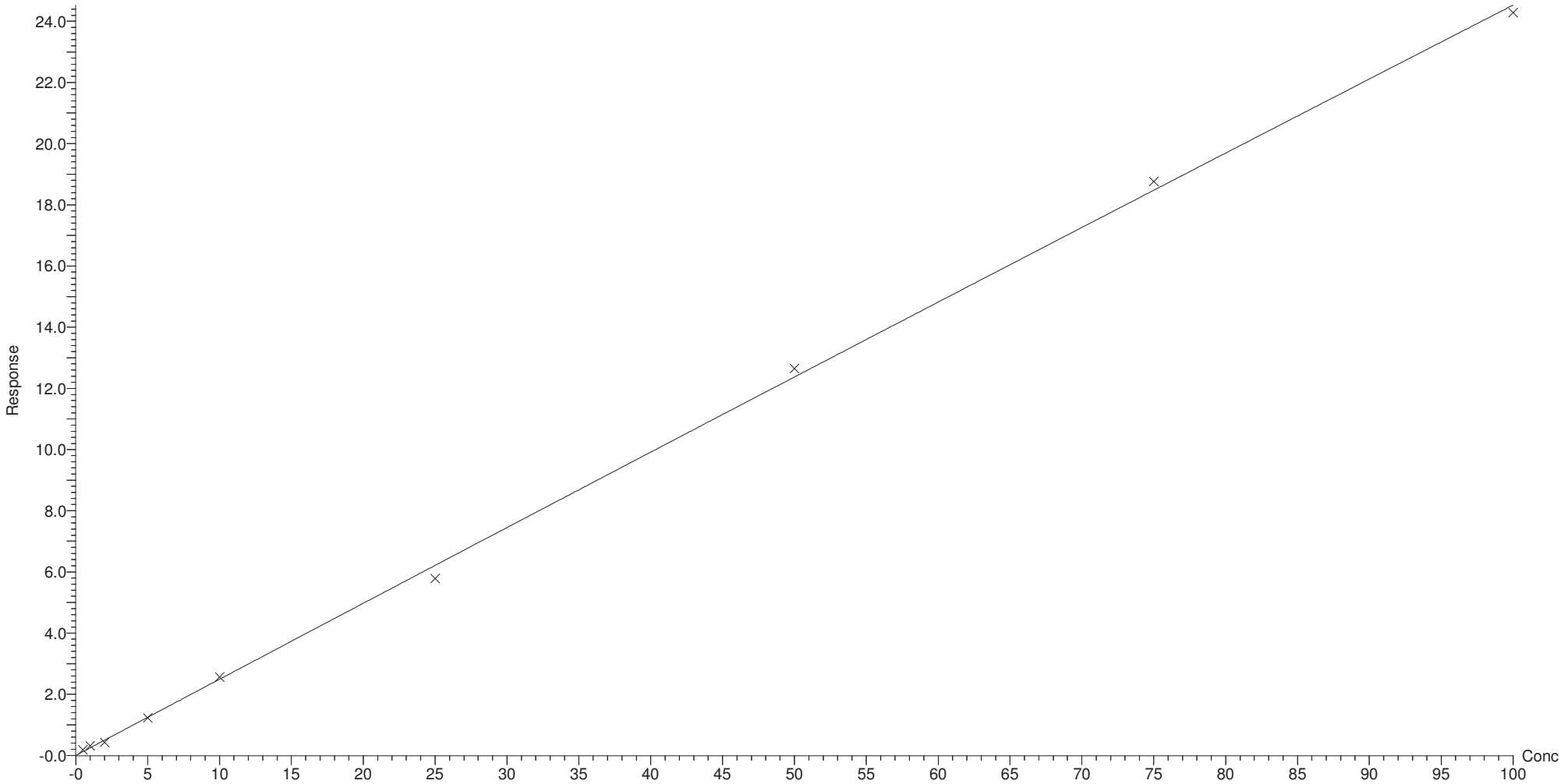


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.998261
Calibration curve: -4.32646e-005 * x^2 + 0.249616 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

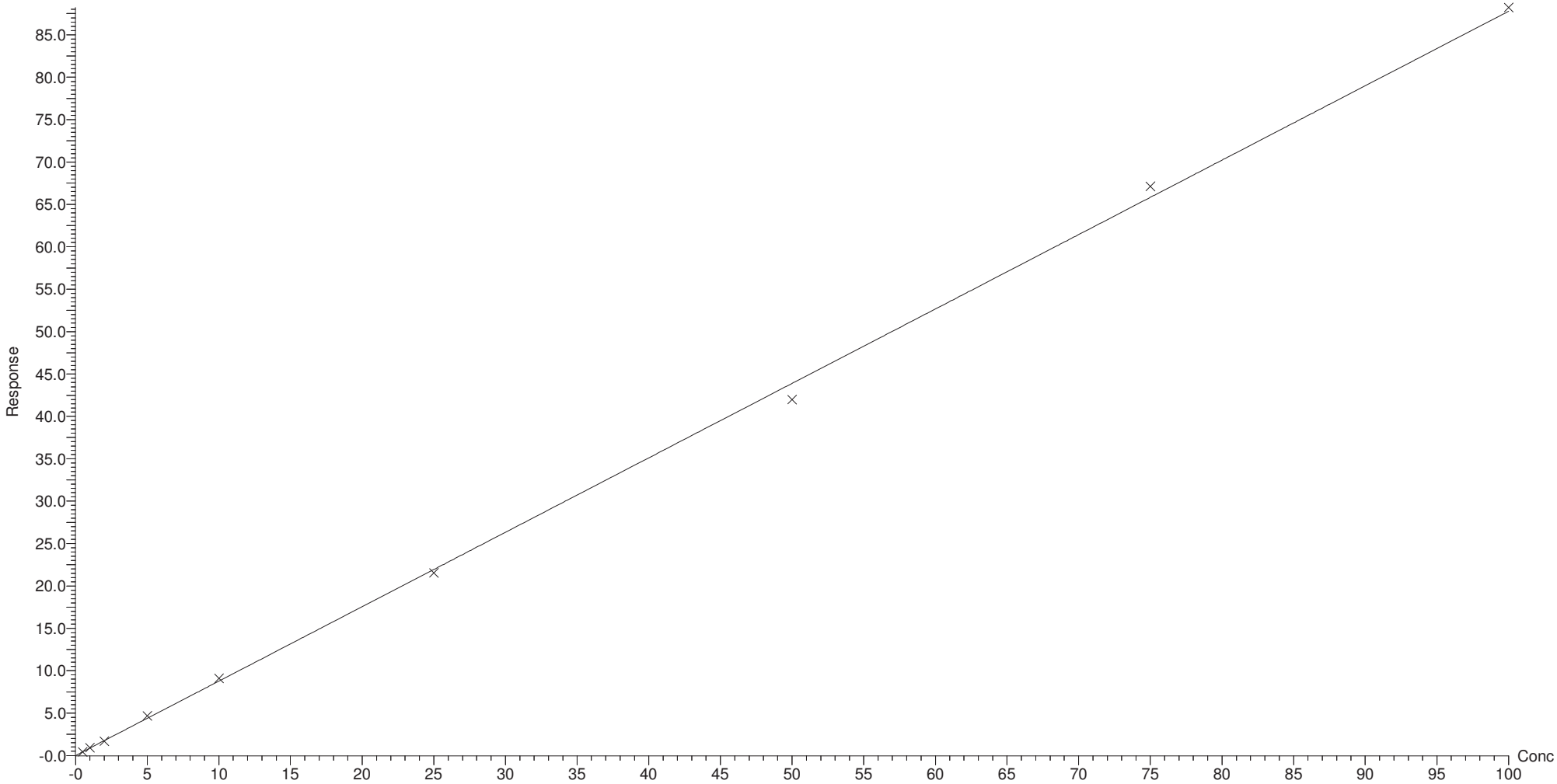


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.999308
Calibration curve: 0.877756 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

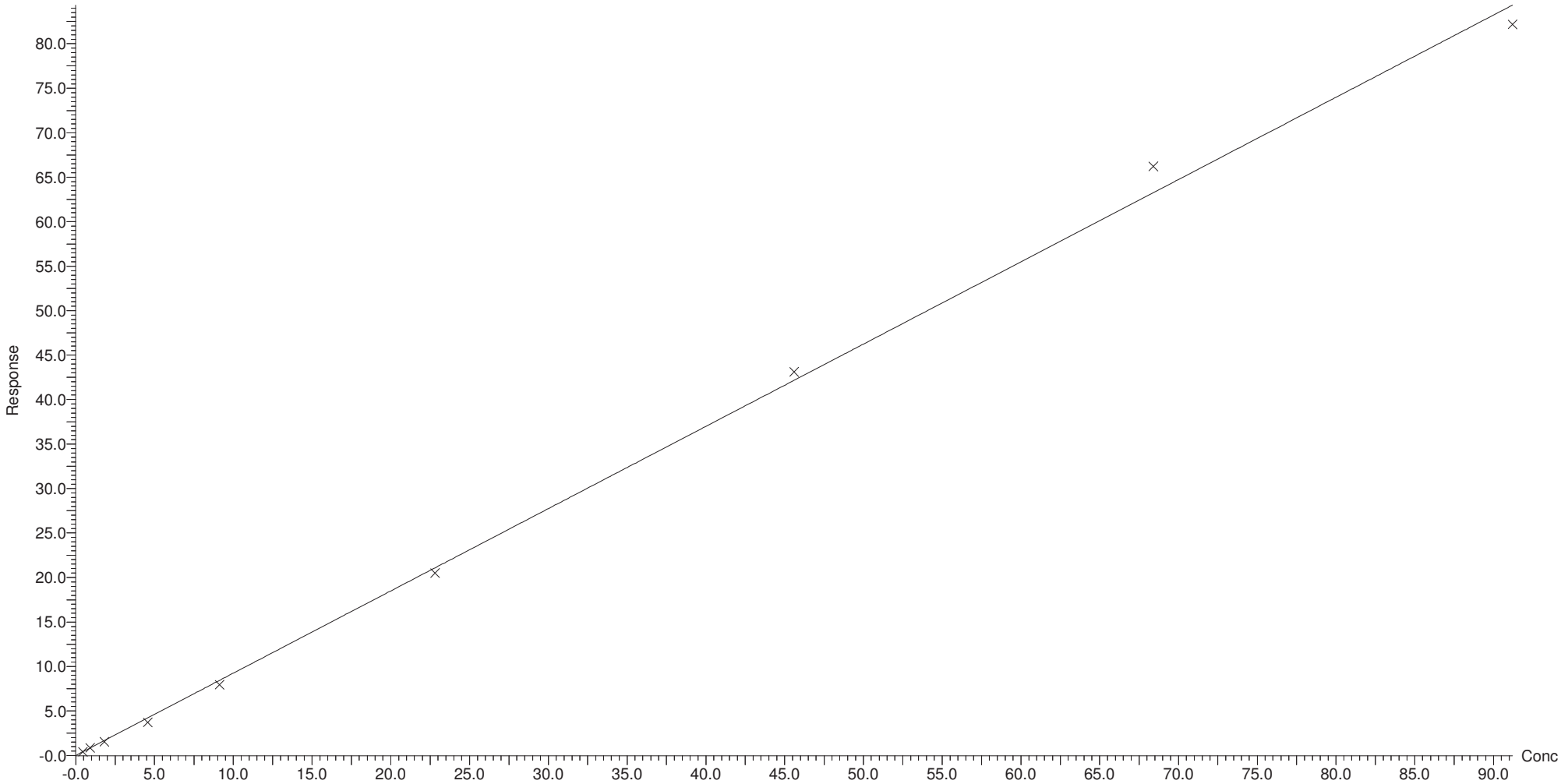


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.998418
Calibration curve: 0.924814 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

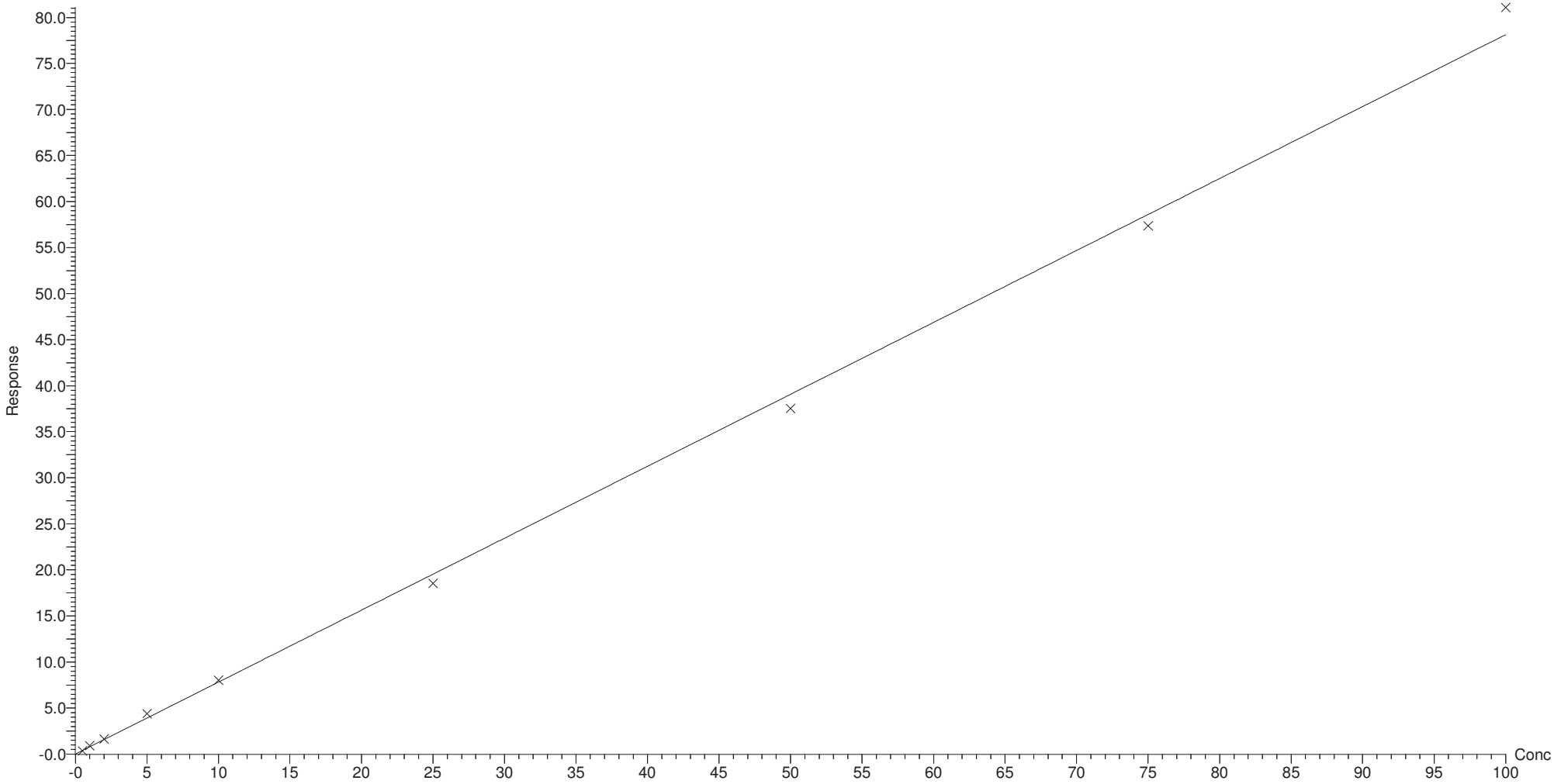


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.998287
Calibration curve: 0.781315 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

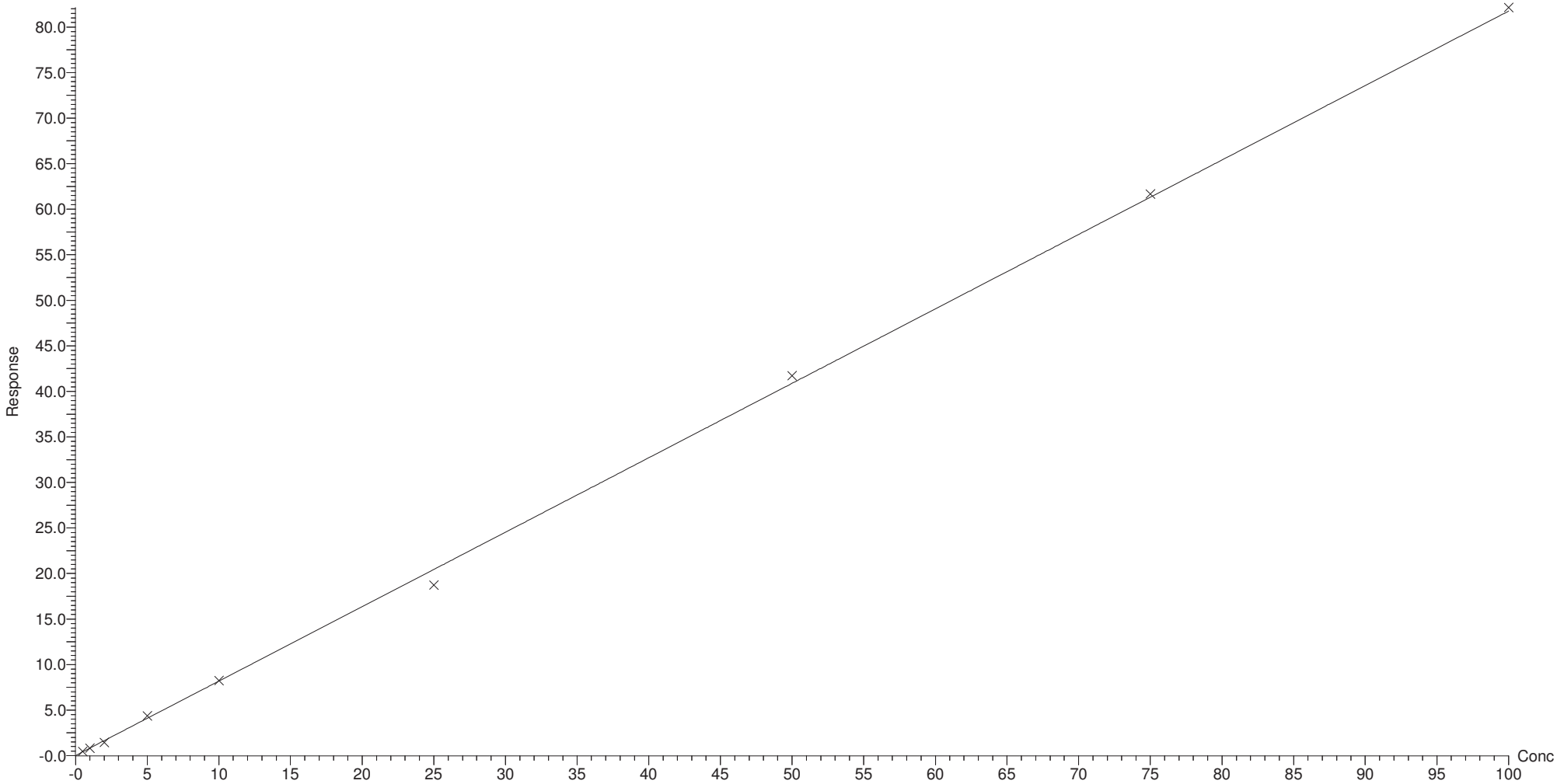


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998977
Calibration curve: 0.817469 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

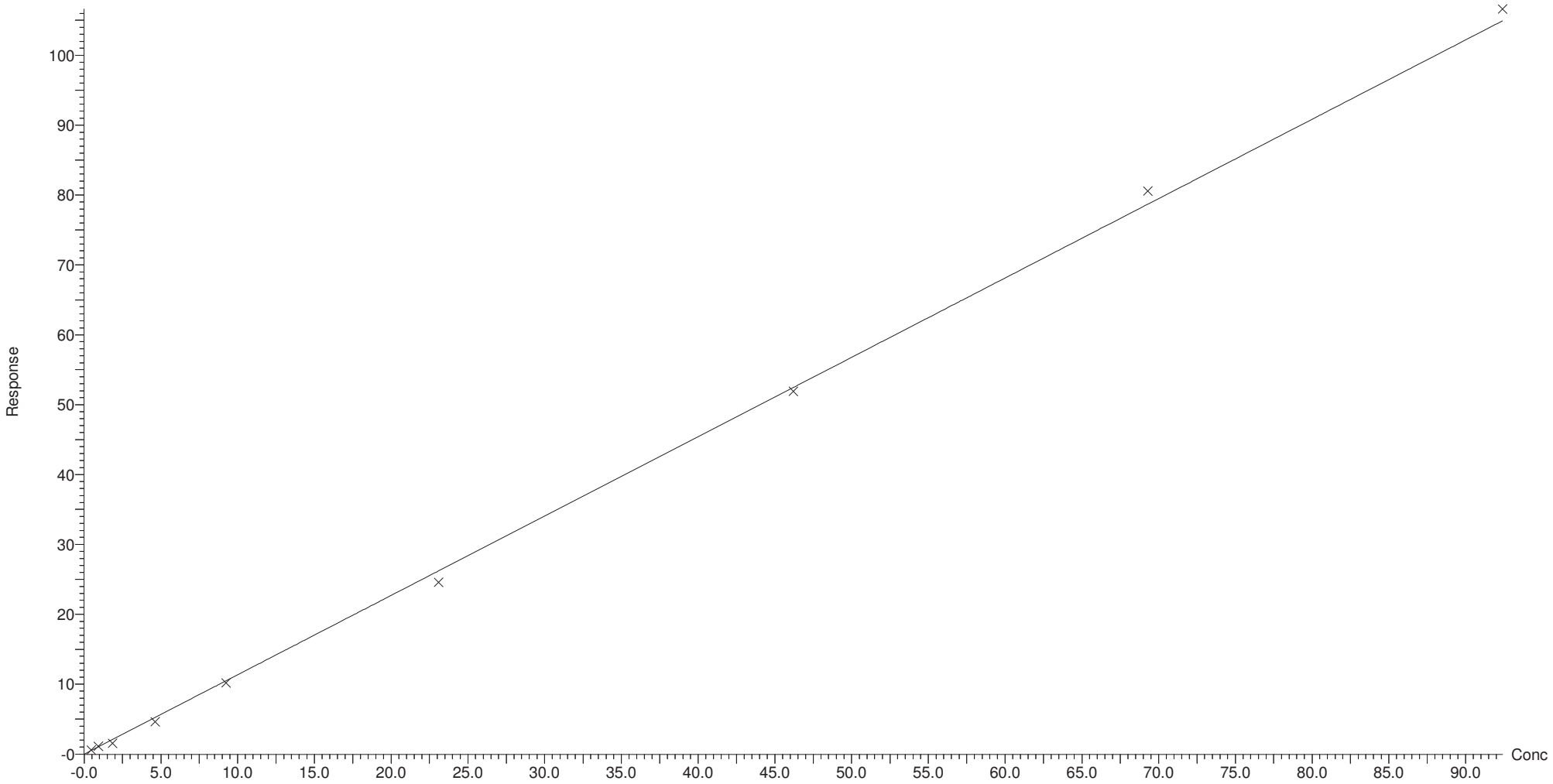


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.998400
Calibration curve: 1.13555 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

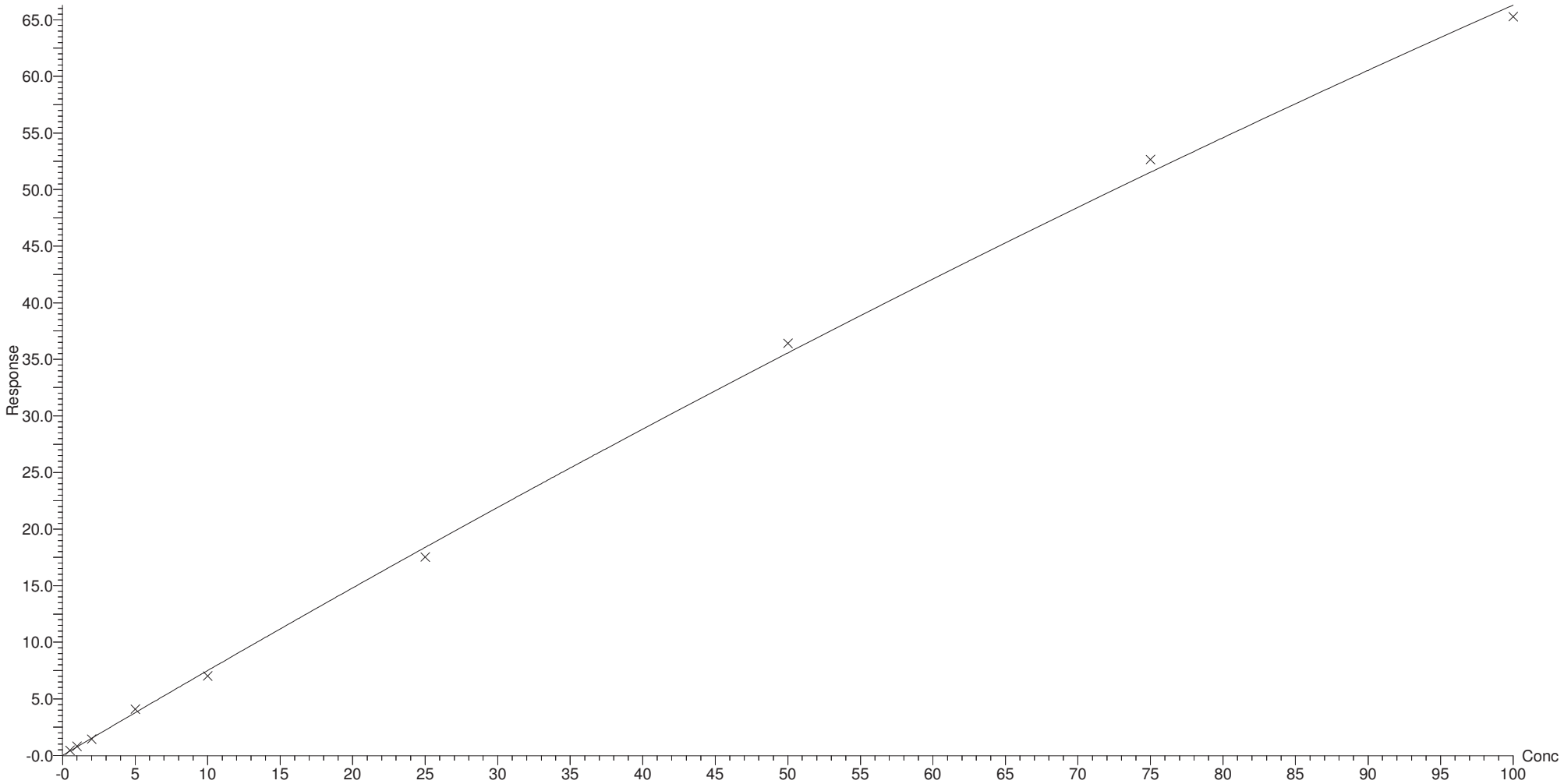


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.998859
Calibration curve: -0.000966258 * x^2 + 0.759574 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

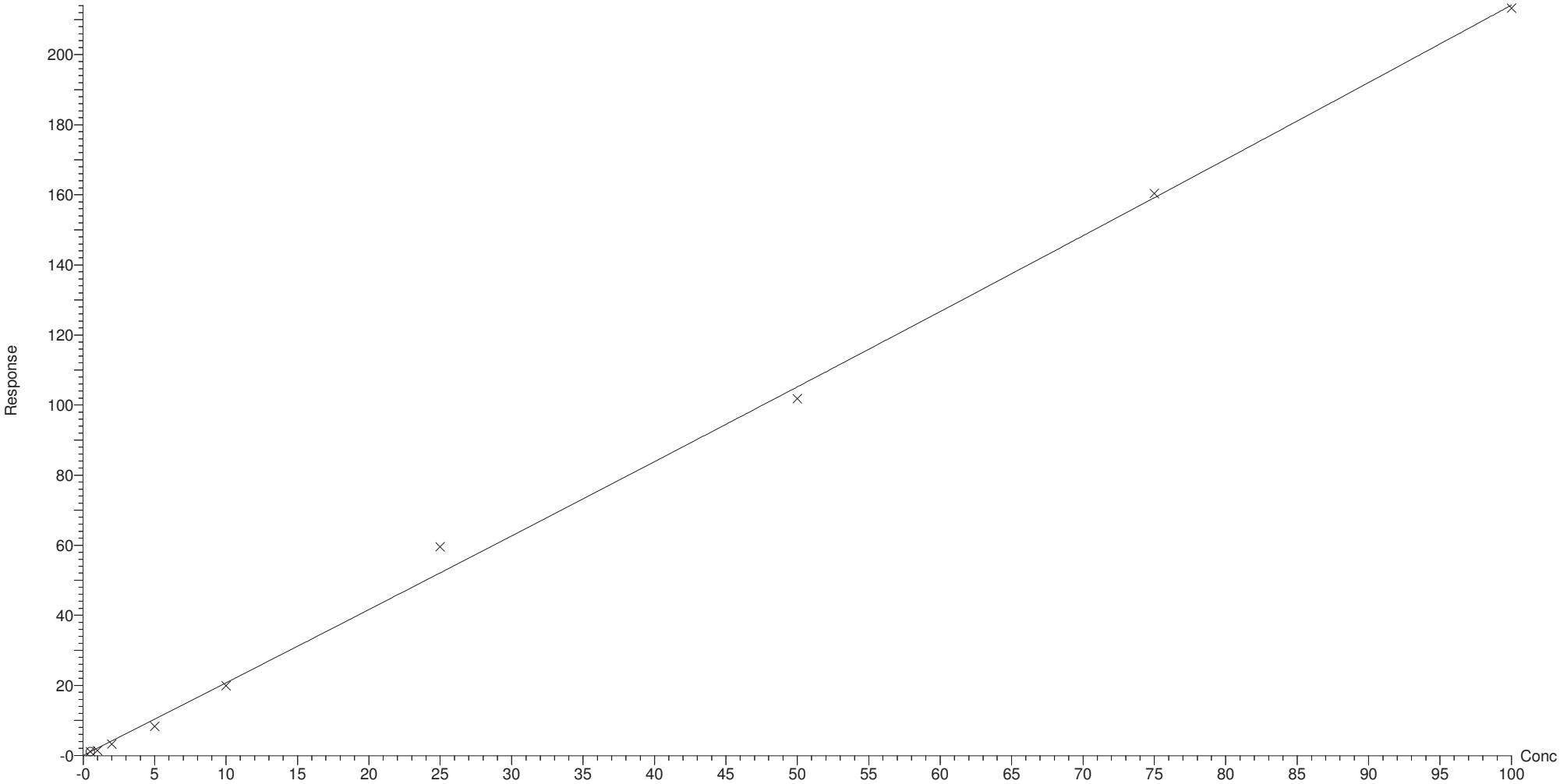


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.996172
Calibration curve: 0.000753202 * x^2 + 2.06605 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

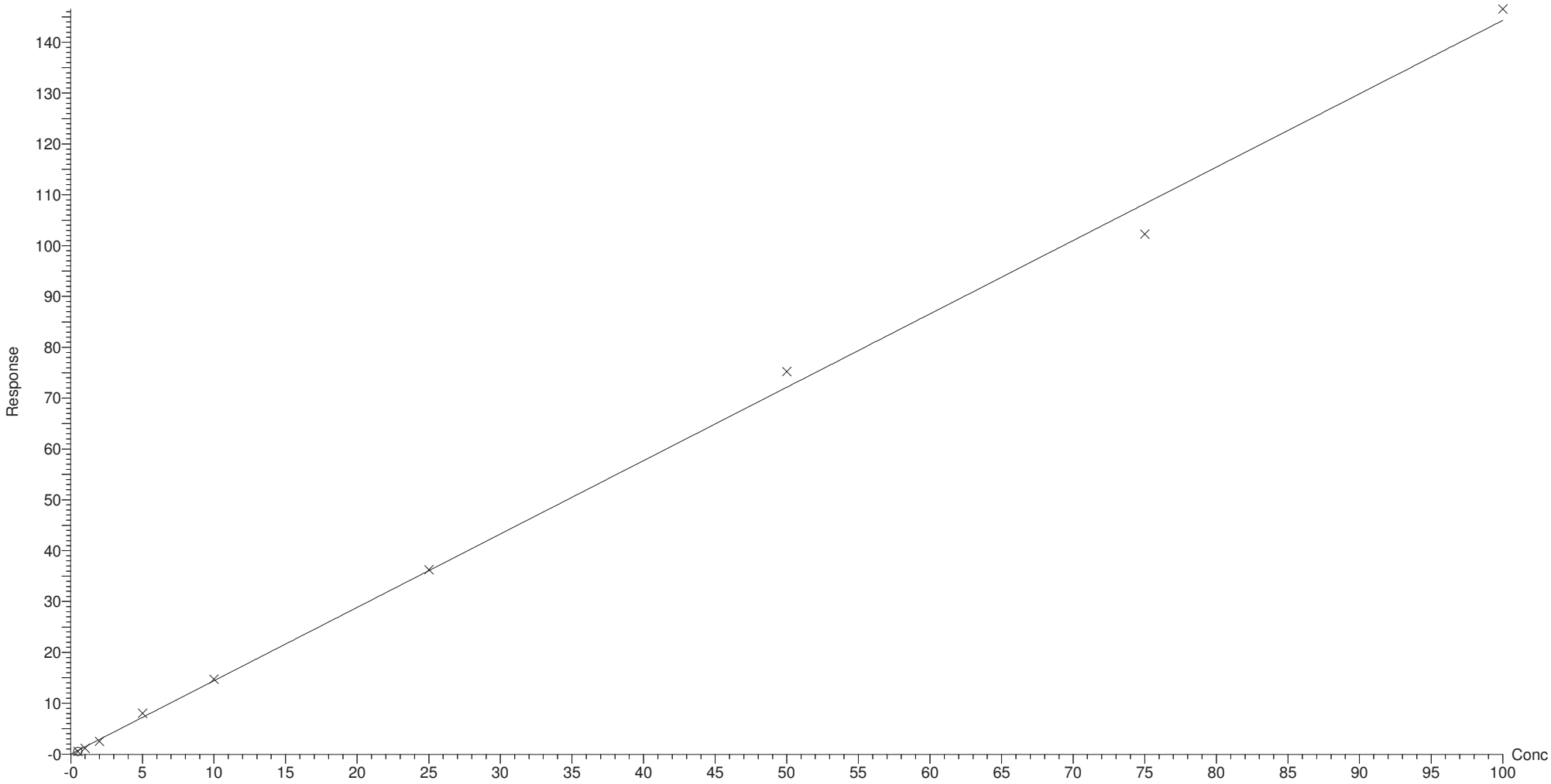


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997954
Calibration curve: 1.443 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

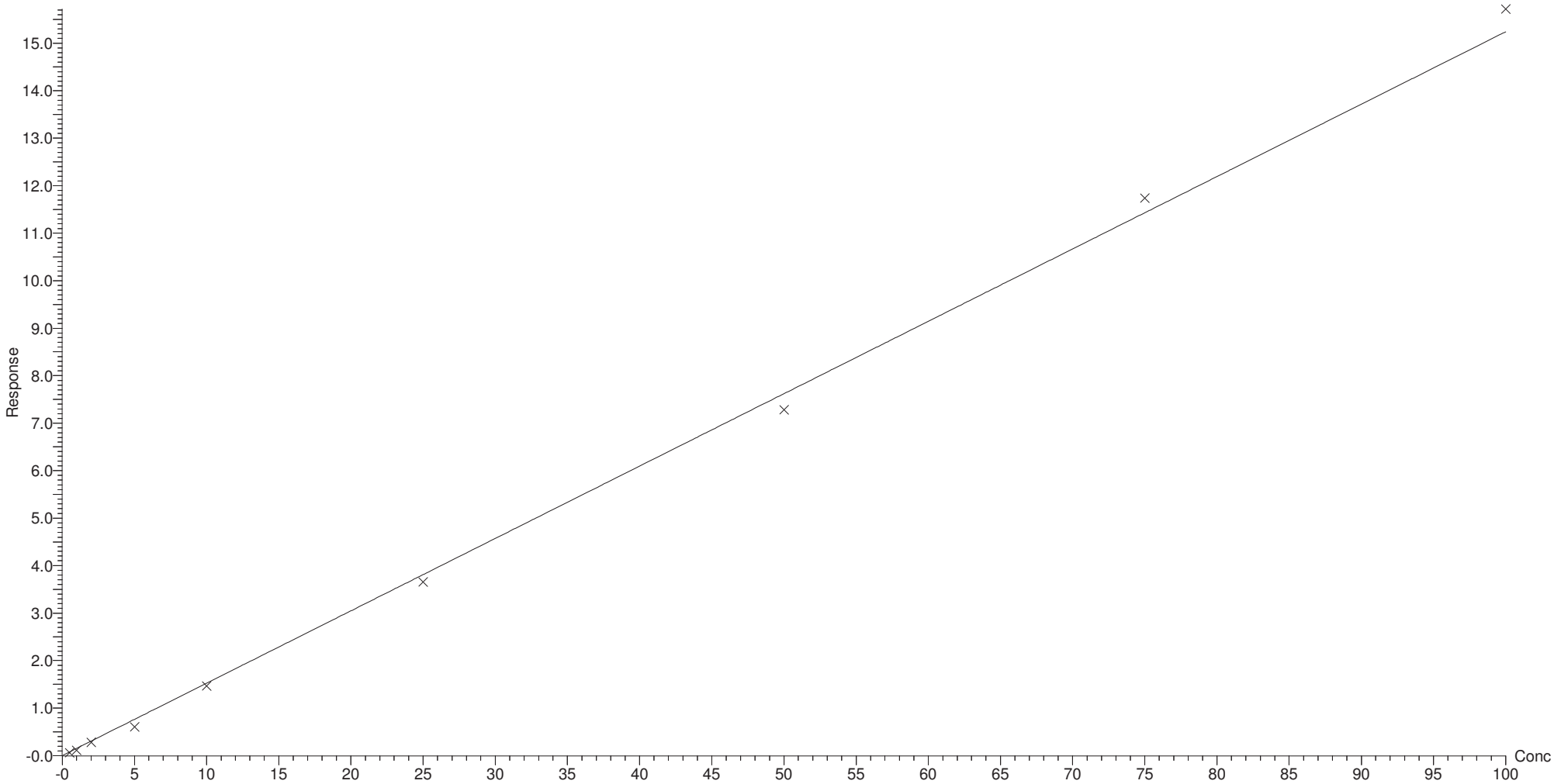


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.997497
Calibration curve: 0.152407 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

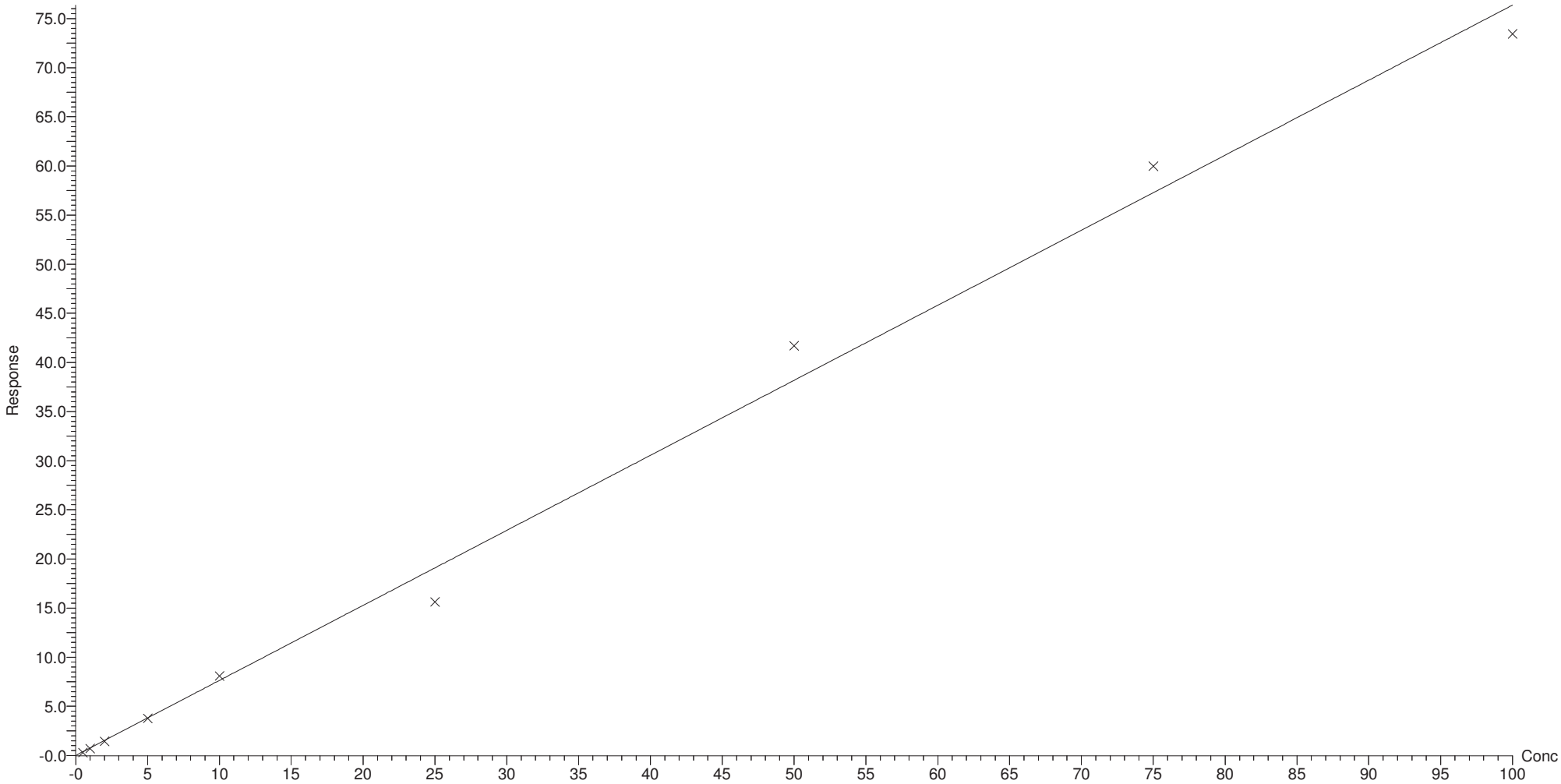


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.993494
Calibration curve: 0.763667 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

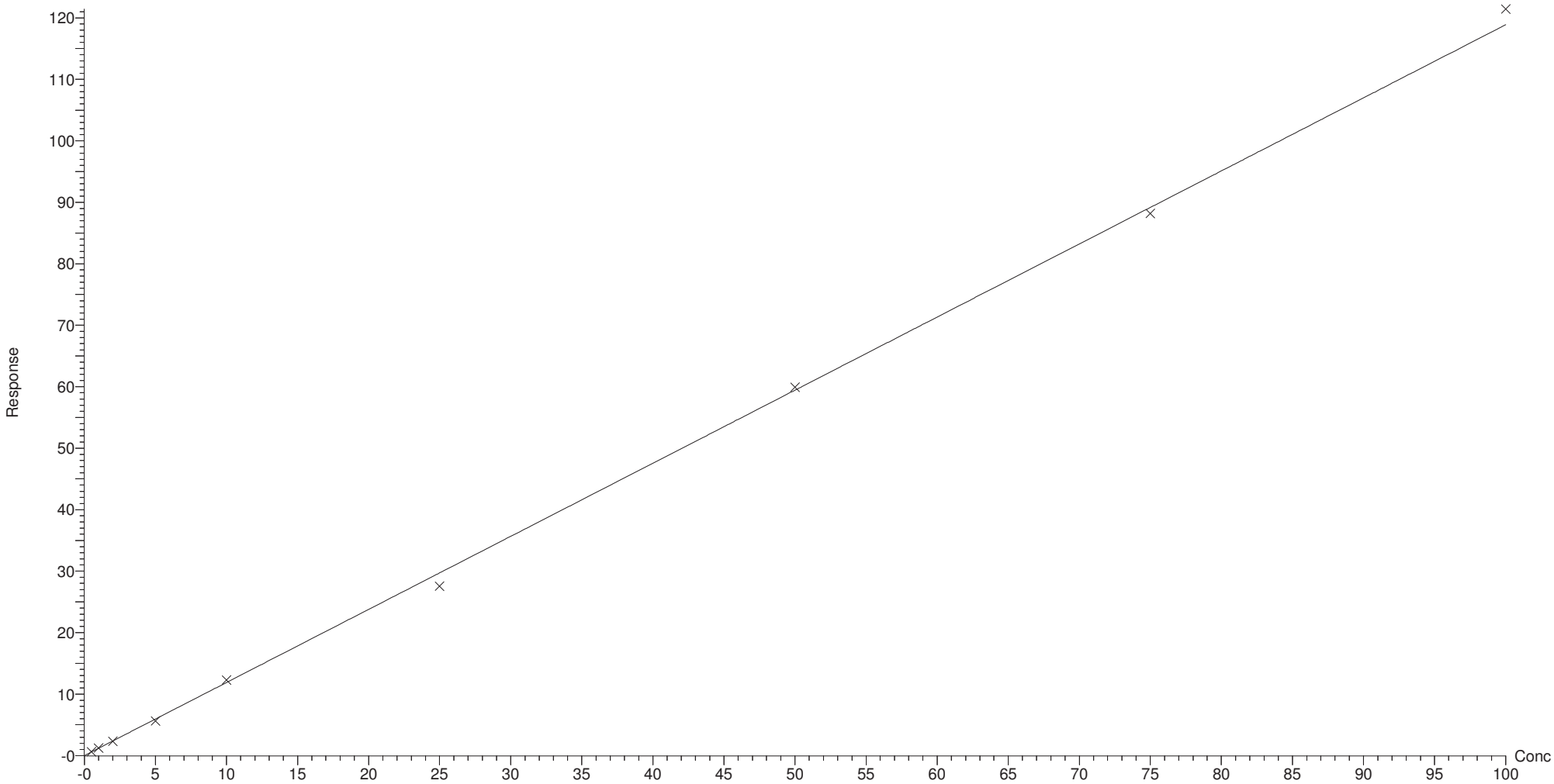


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999127
Calibration curve: 1.18882 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

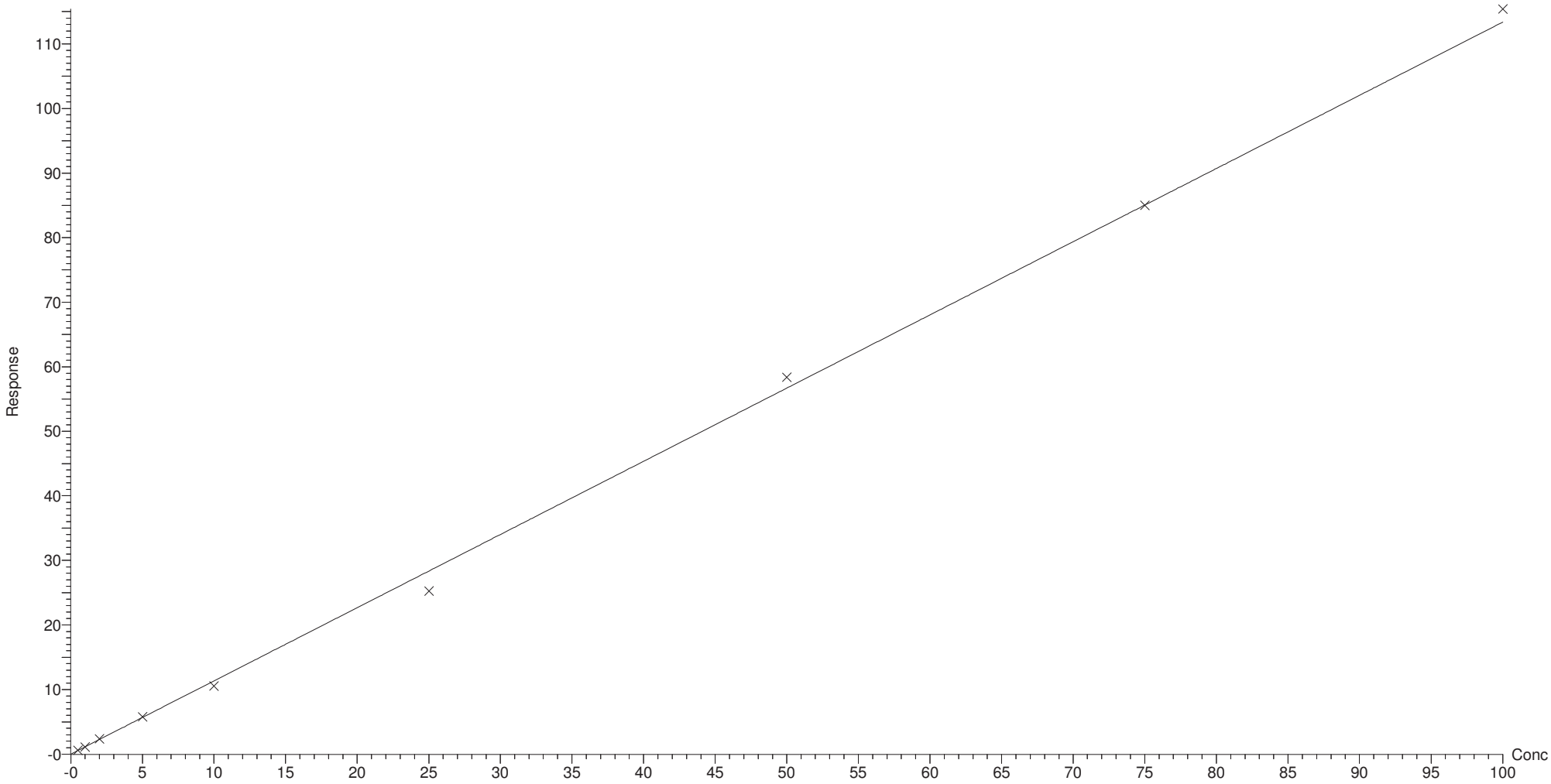


GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:35:53 Pacific Standard Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998282
Calibration curve: 1.13384 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



GM 1/26/2018

Vista Analytical Laboratory

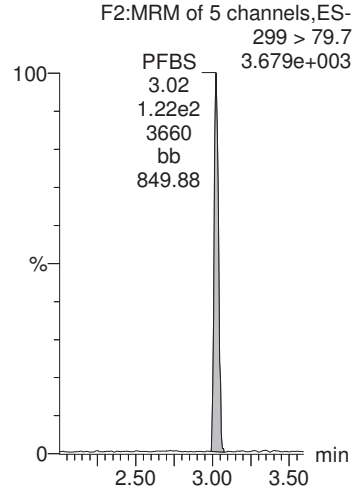
Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

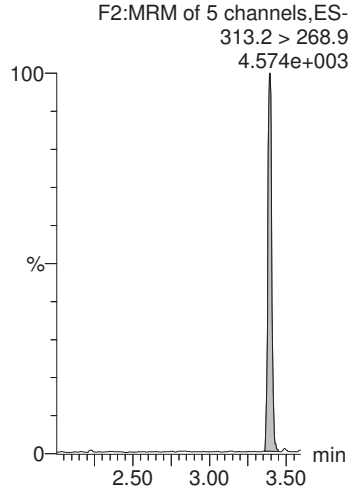
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: 26 Jan 2018 10:31:45

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

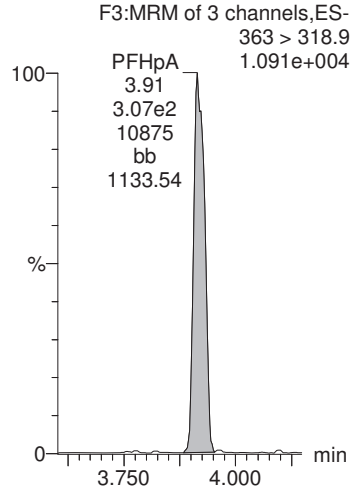
PFBS



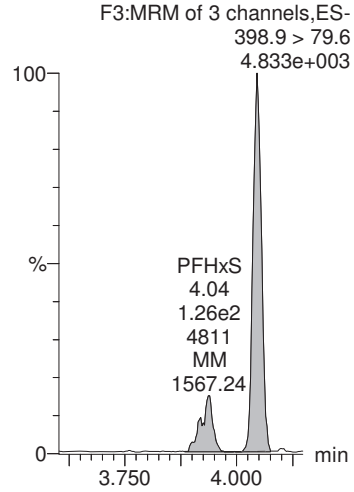
PFHxA



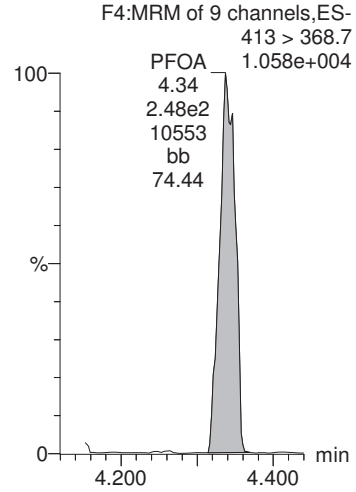
PFHpA



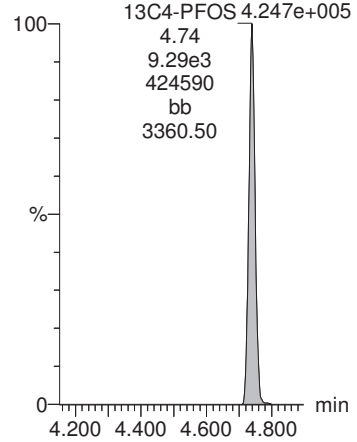
PFHxS



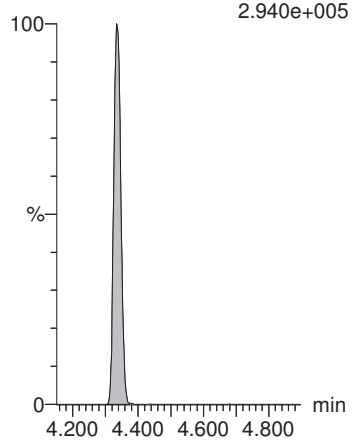
PFOA



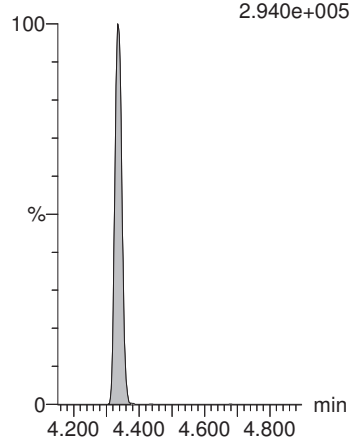
13C4-PFOS



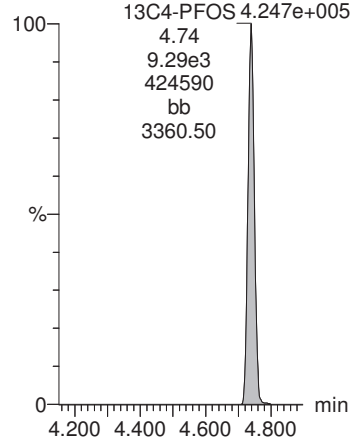
13C2-PFOA



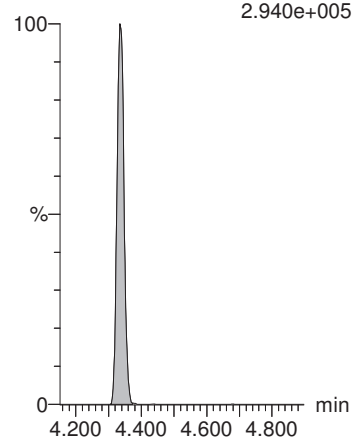
13C2-PFOA



13C4-PFOS



13C2-PFOA



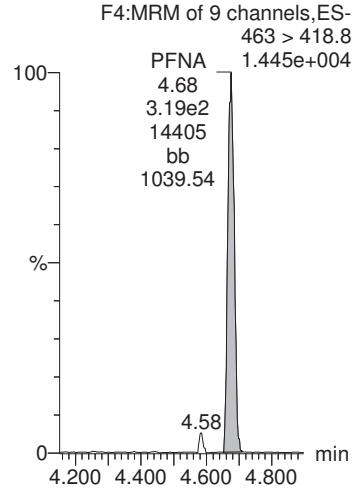
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

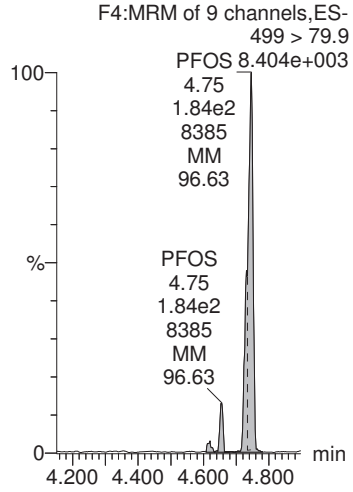
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

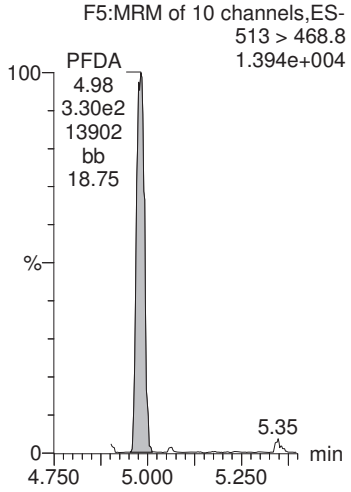
PFNA



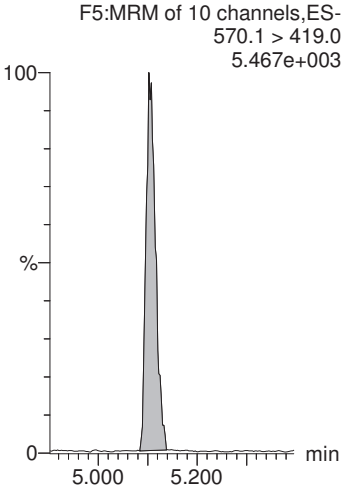
PFOS



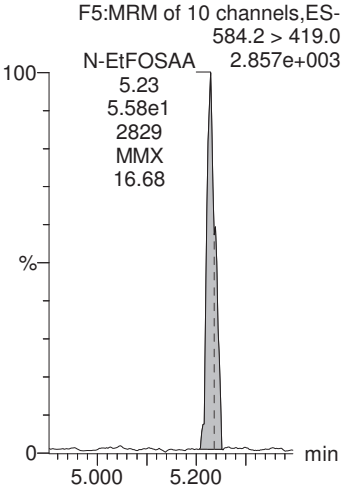
PFDA



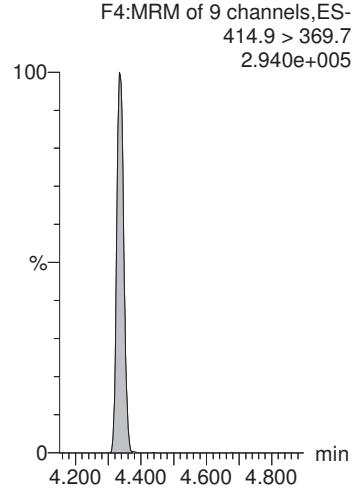
N-MeFOSAA



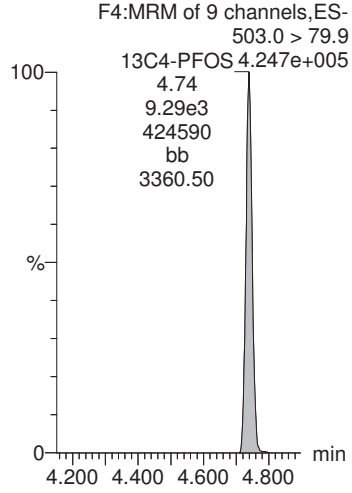
N-EtFOSAA



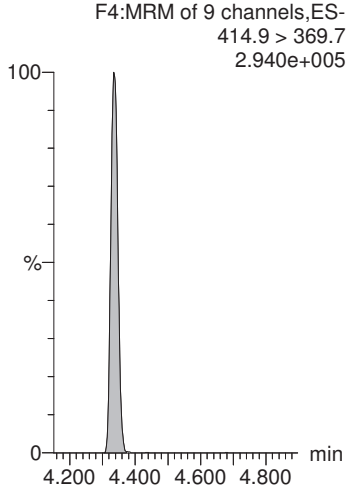
13C2-PFOA



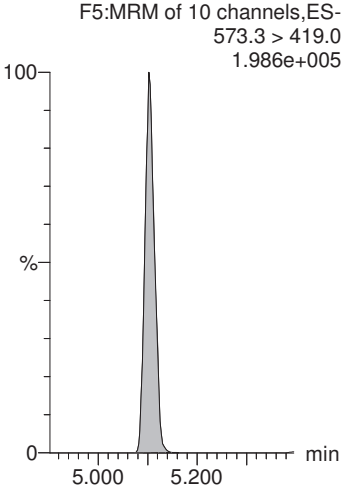
13C4-PFOS



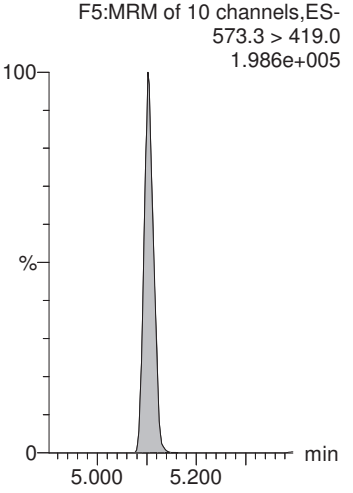
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



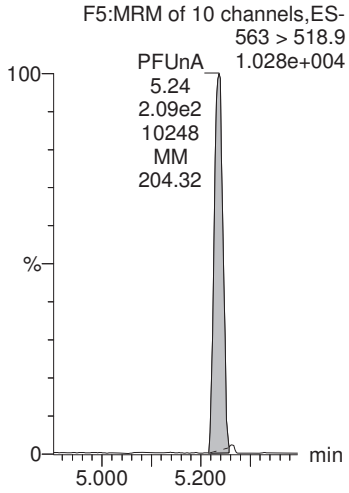
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

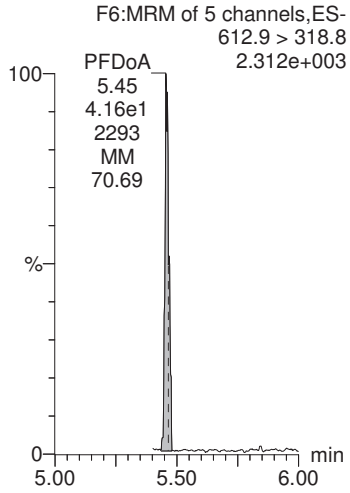
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

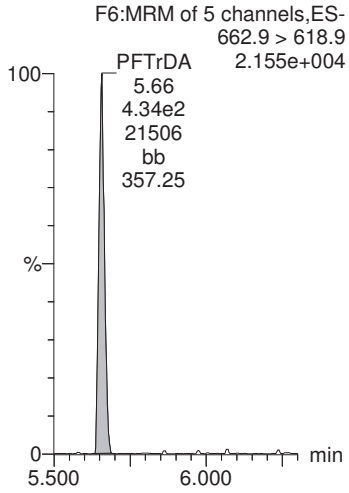
PFUnA



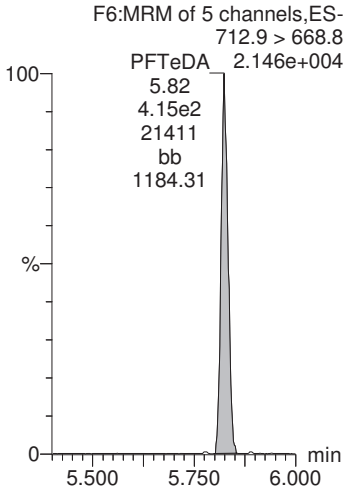
PFDoA



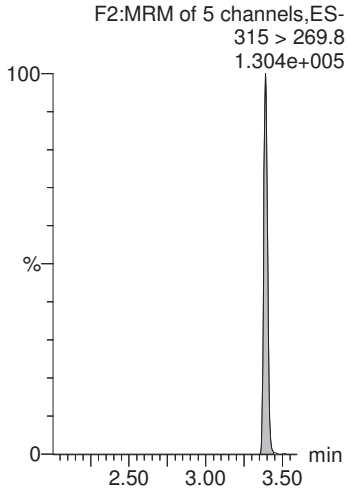
PFTrDA



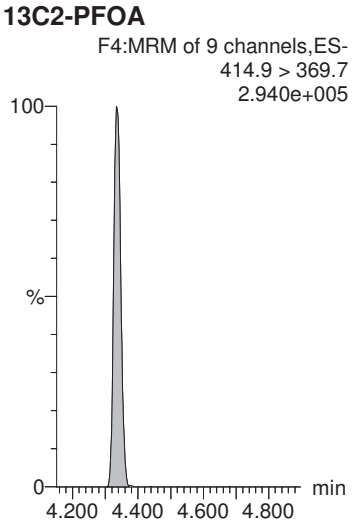
PFTeDA



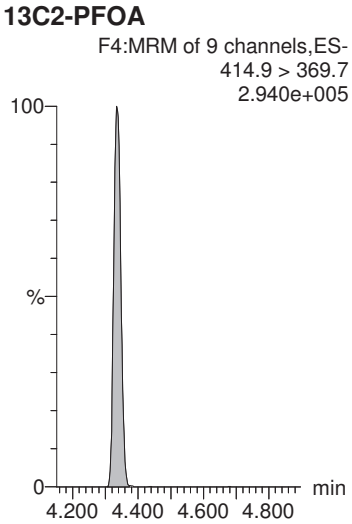
13C2-PFHxA



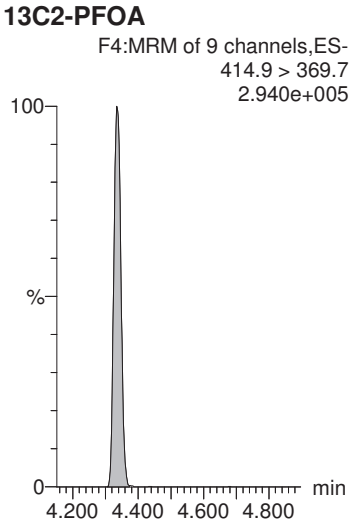
13C2-PFOA



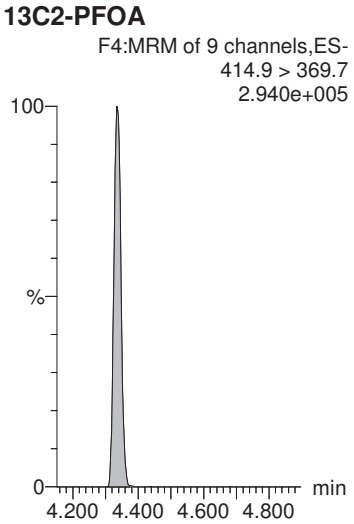
13C2-PFOA



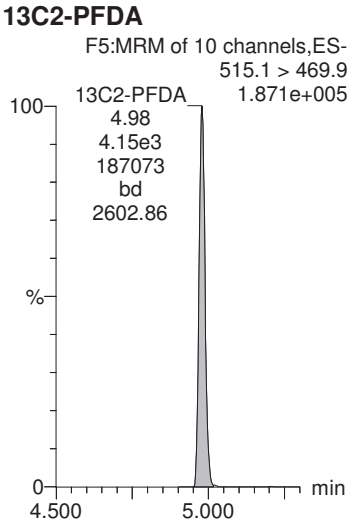
13C2-PFOA



13C2-PFOA



13C2-PFDA



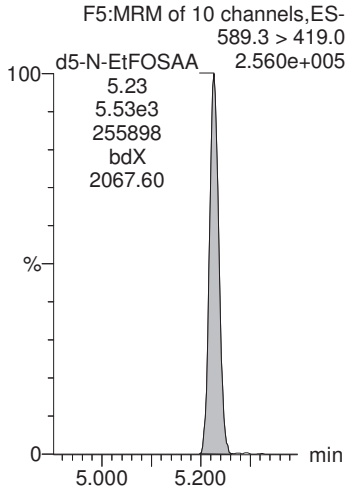
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

d5-N-EtFOSAA



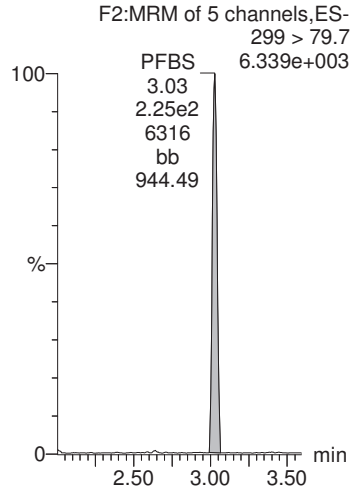
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

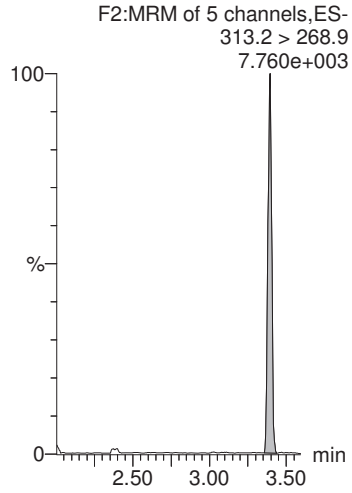
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

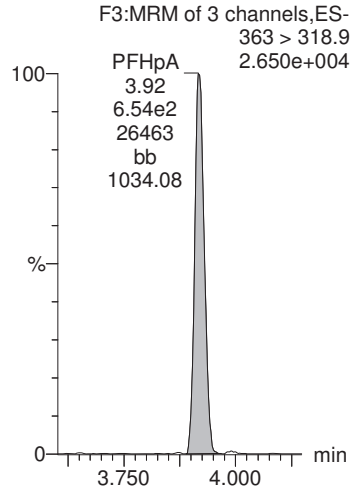
PFBS



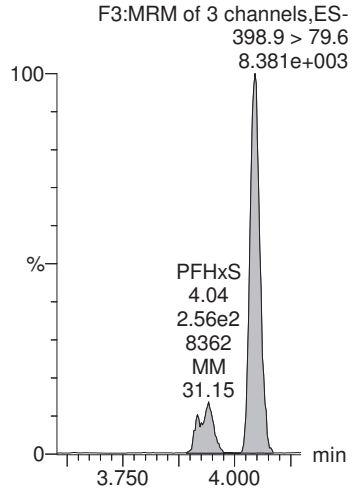
PFHxA



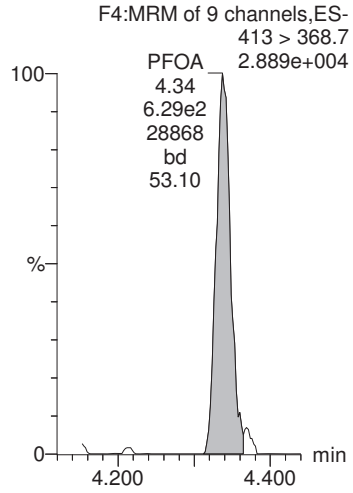
PFHpA



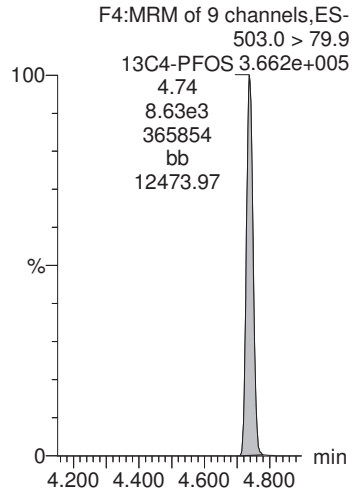
PFHxS



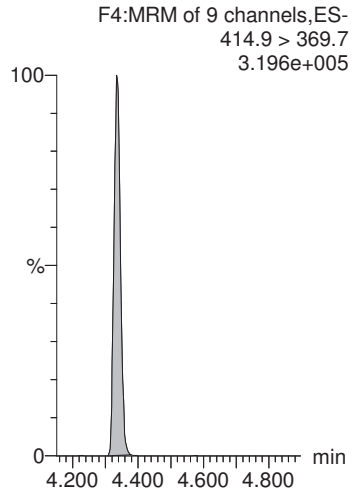
PFOA



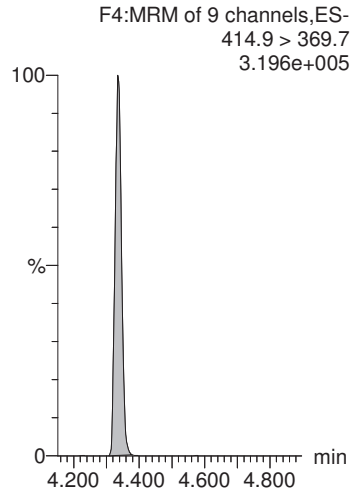
13C4-PFOS



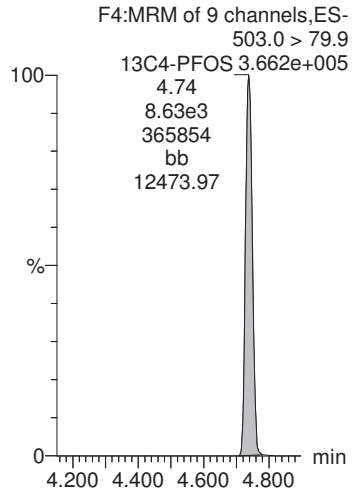
13C2-PFOA



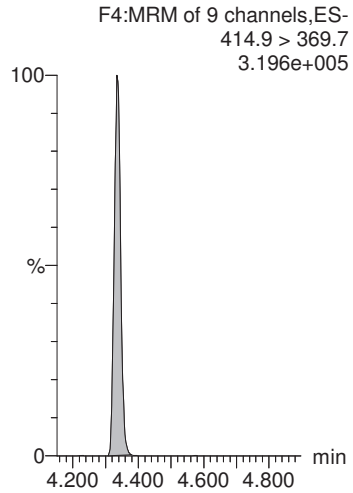
13C2-PFOA



13C4-PFOS



13C2-PFOA



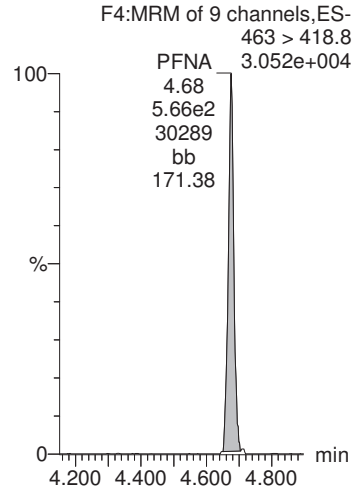
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

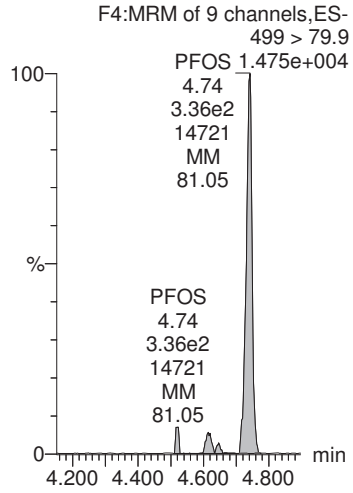
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

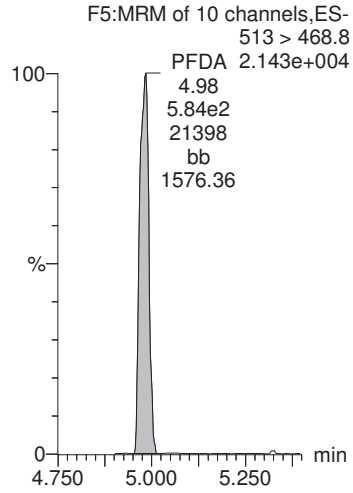
PFNA



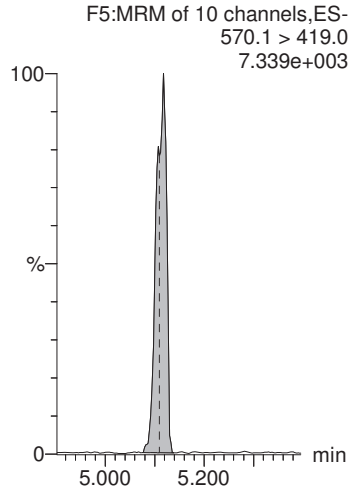
PFOS



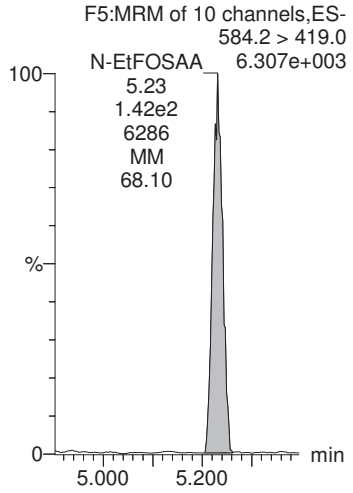
PFDA



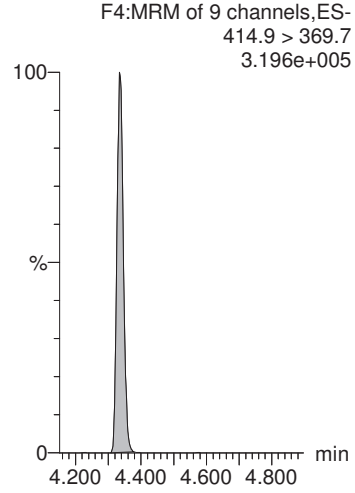
N-MeFOSAA



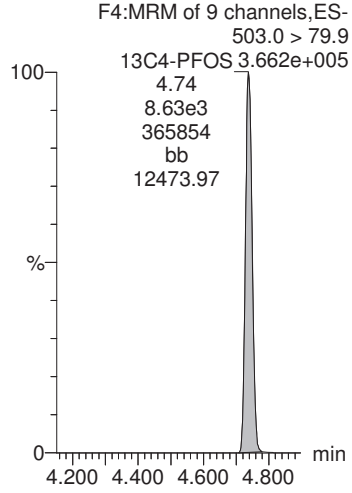
N-EtFOSAA



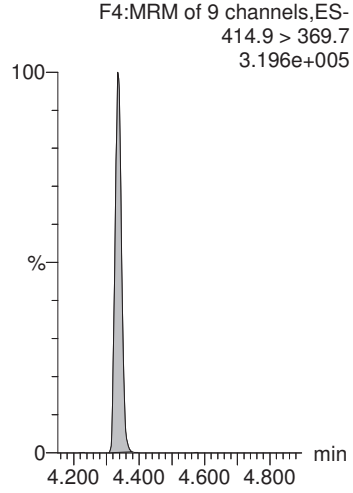
13C2-PFOA



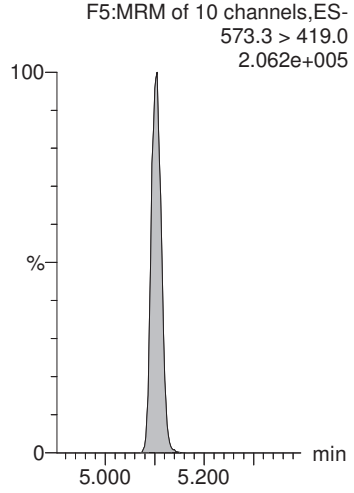
13C4-PFOS



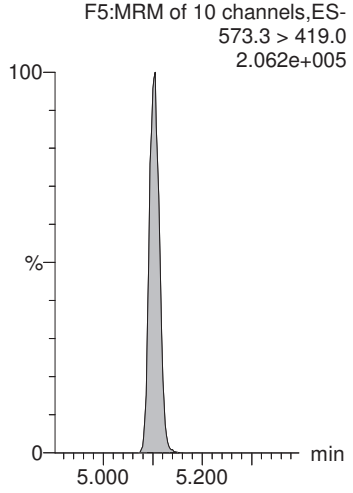
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



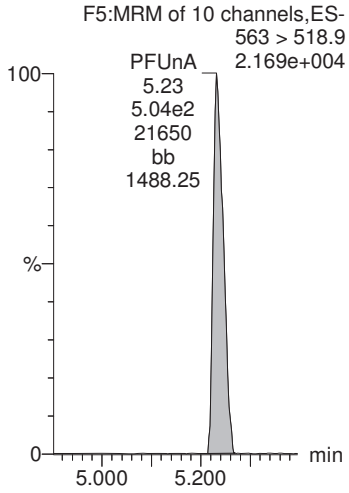
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

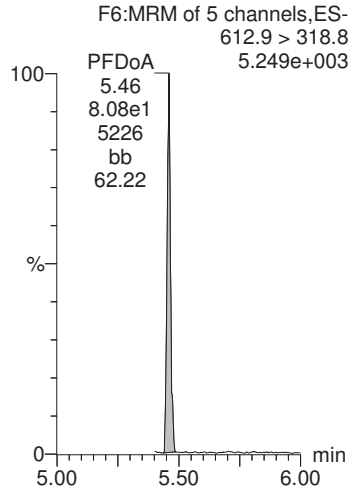
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

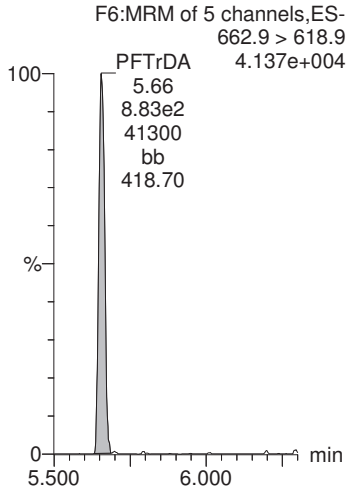
PFUnA



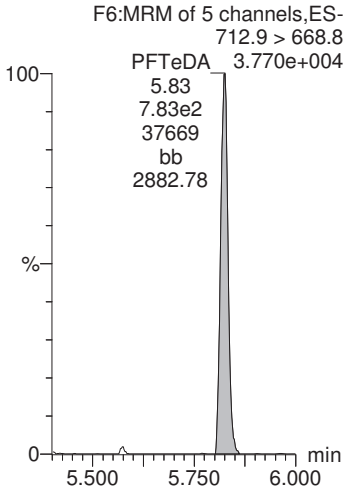
PFDoA



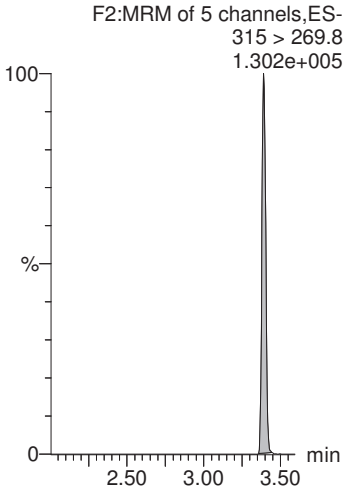
PFTrDA



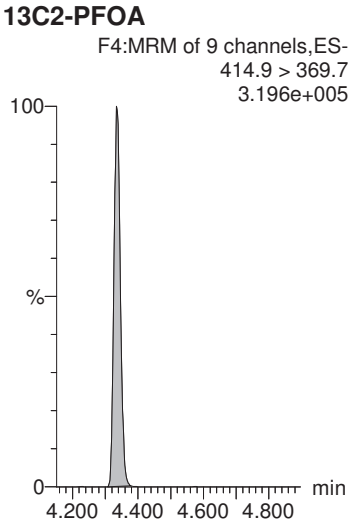
PFTeDA



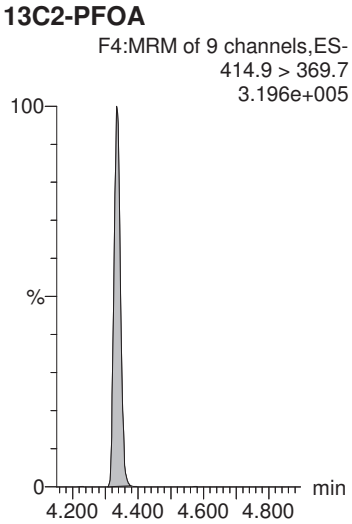
13C2-PFHxA



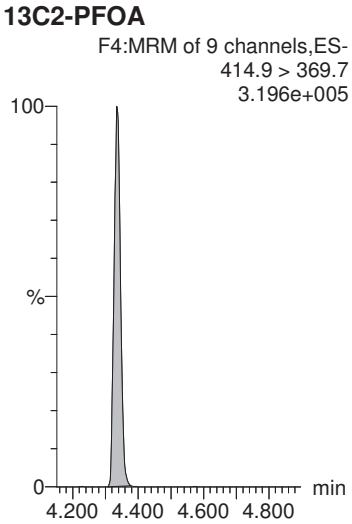
13C2-PFOA



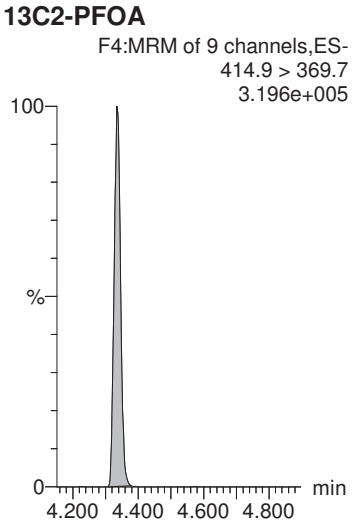
13C2-PFOA



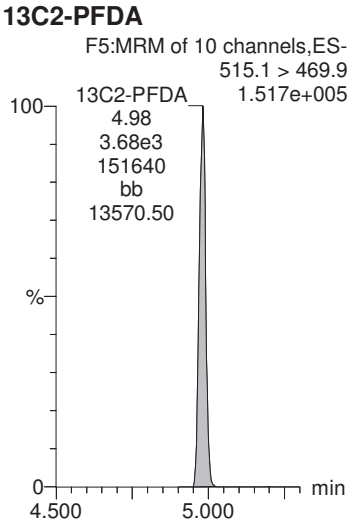
13C2-PFOA



13C2-PFOA



13C2-PFDA



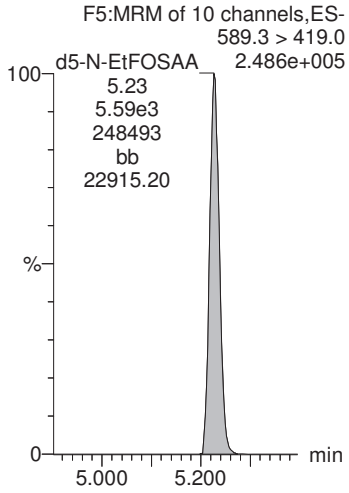
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

d5-N-EtFOSAA



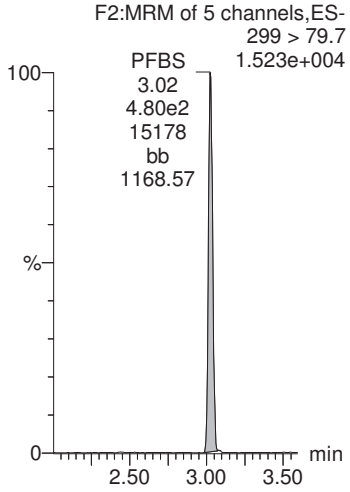
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

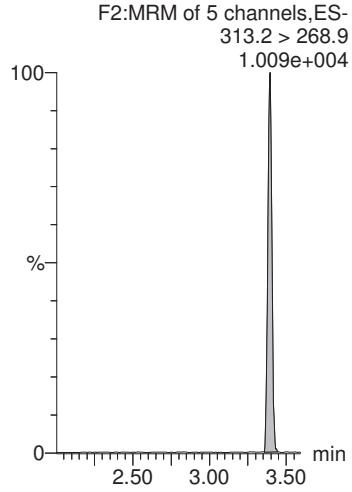
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

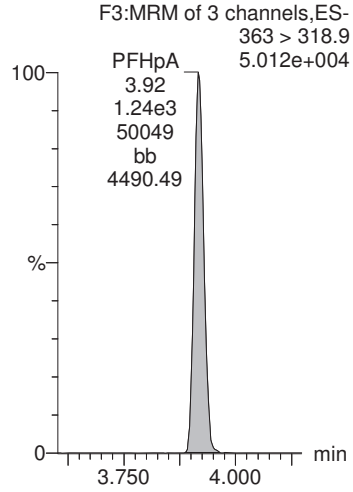
PFBS



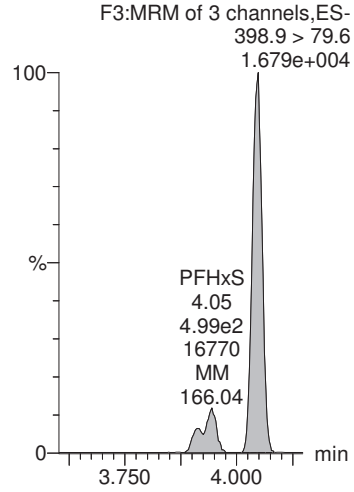
PFHxA



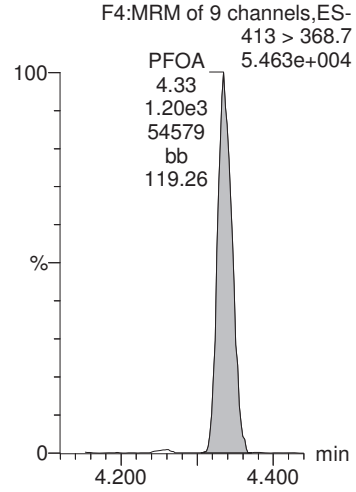
PFHpA



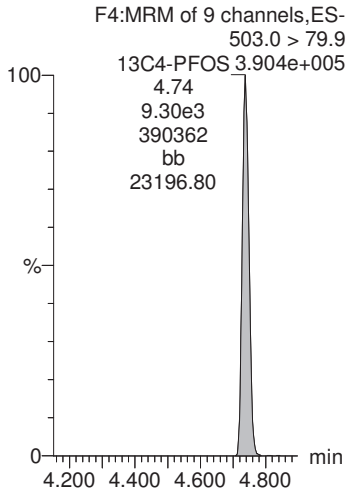
PFHxS



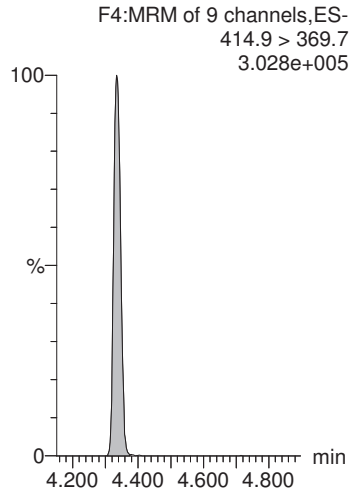
PFOA



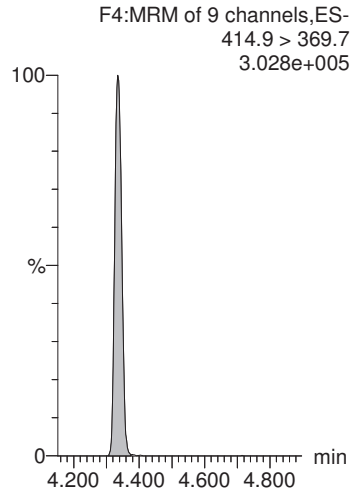
13C4-PFOS



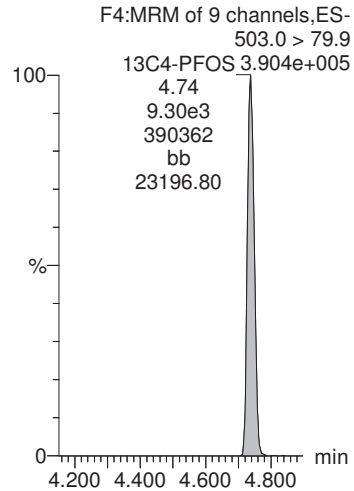
13C2-PFOA



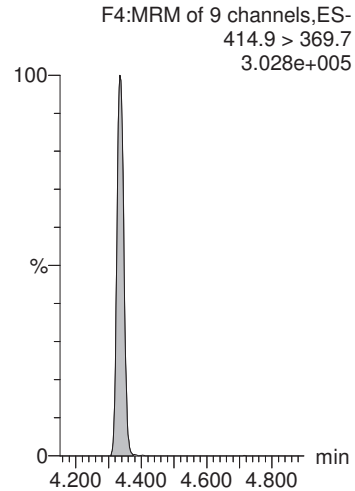
13C2-PFOA



13C4-PFOS



13C2-PFOA



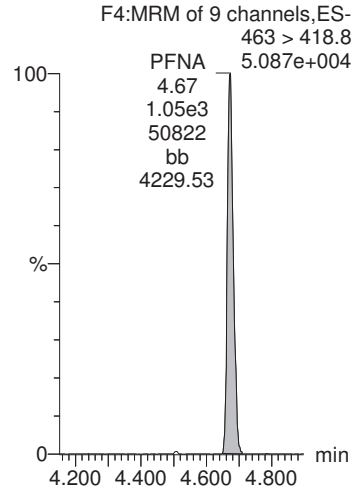
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

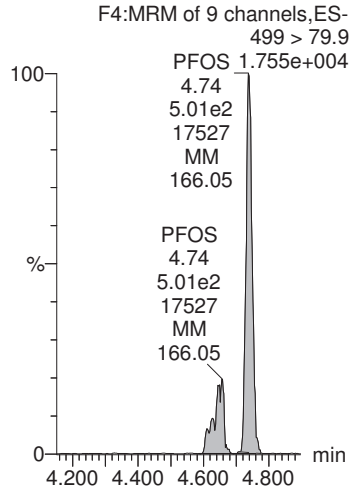
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

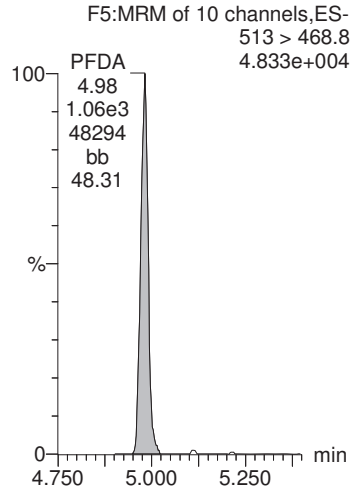
PFNA



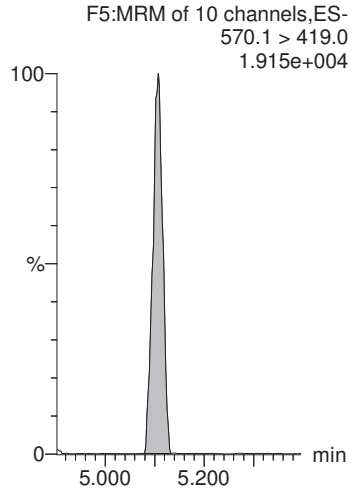
PFOS



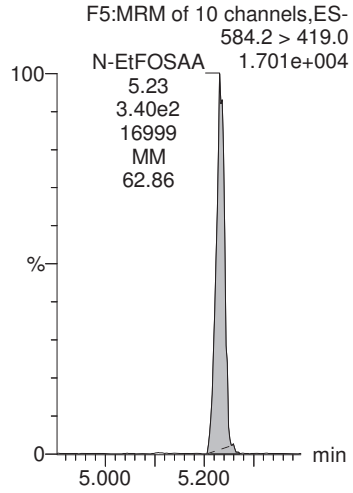
PFDA



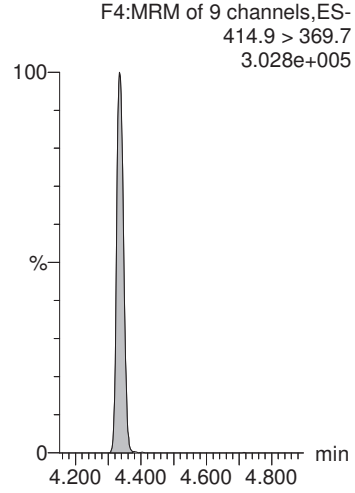
N-MeFOSAA



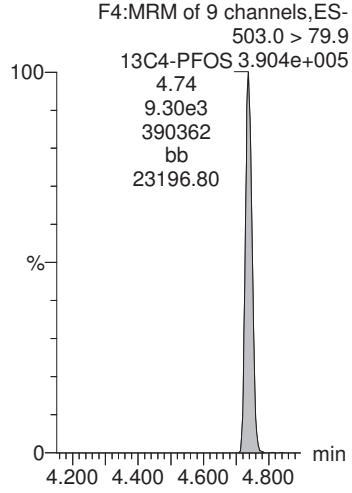
N-EtFOSAA



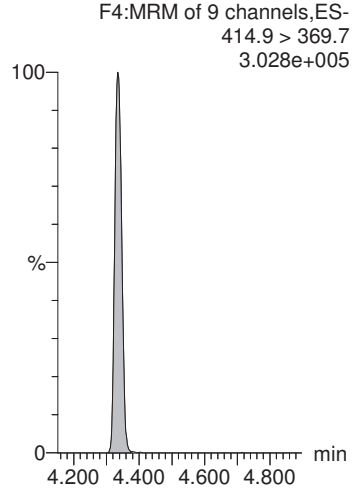
13C2-PFOA



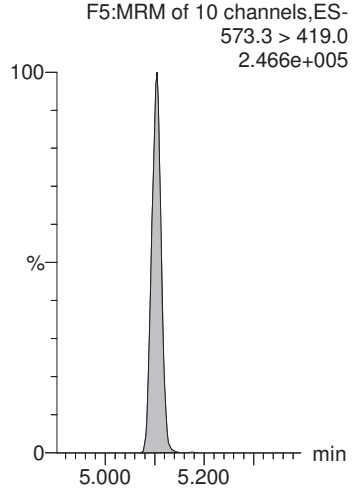
13C4-PFOS



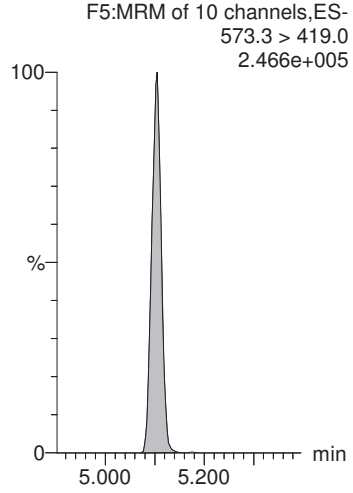
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



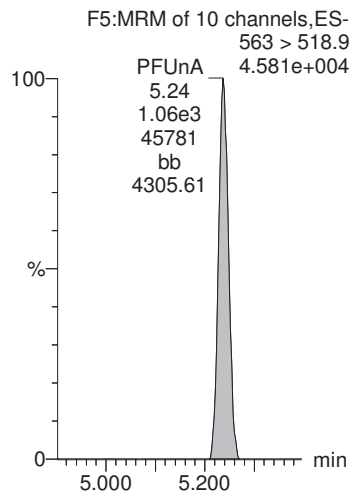
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

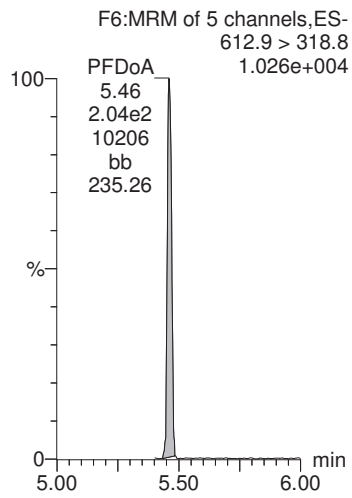
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

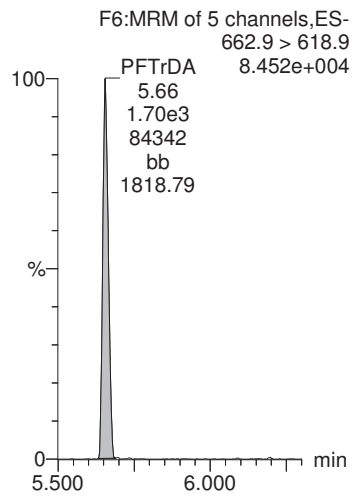
PFUnA



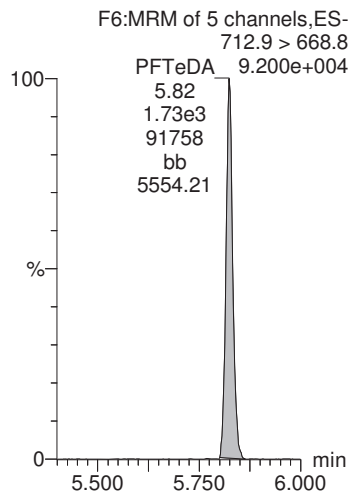
PFDoA



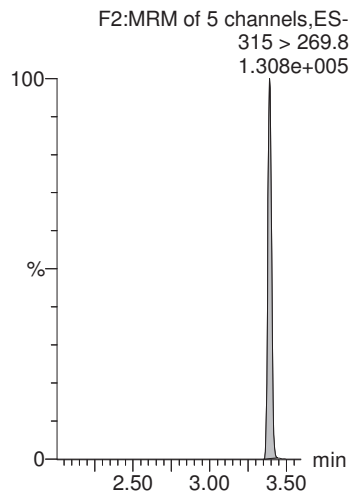
PFTrDA



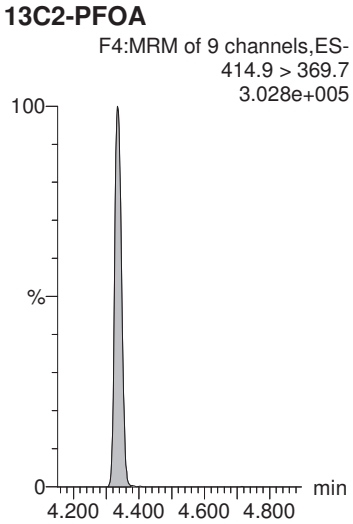
PFTeDA



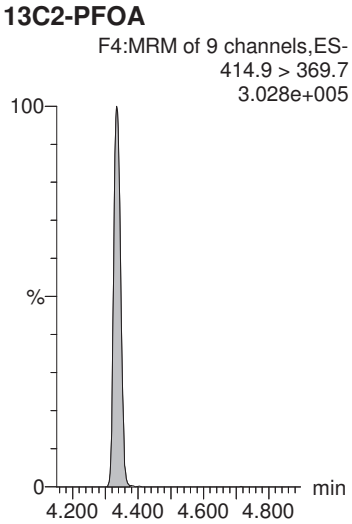
13C2-PFHxA



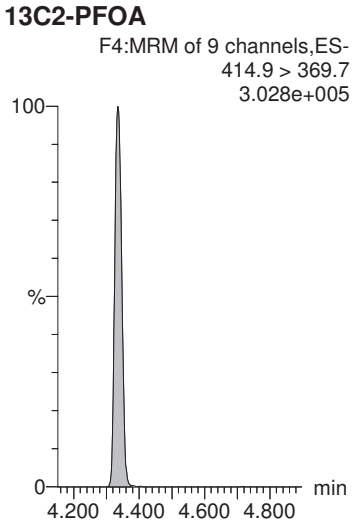
13C2-PFOA



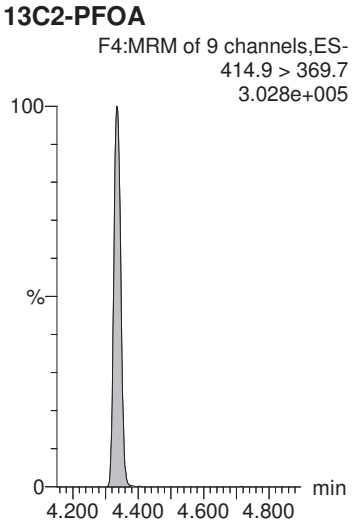
13C2-PFOA



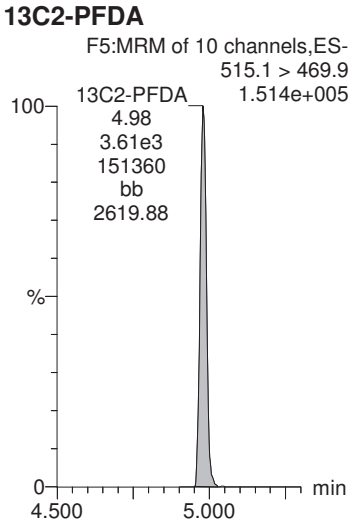
13C2-PFOA



13C2-PFOA



13C2-PFDA



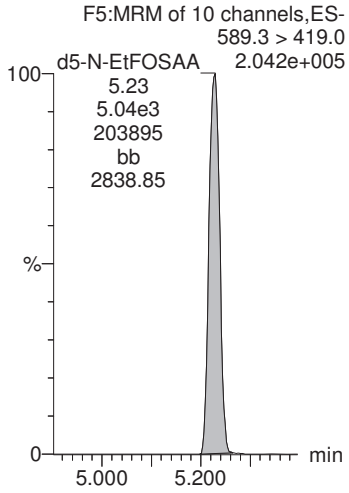
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

d5-N-EtFOSAA



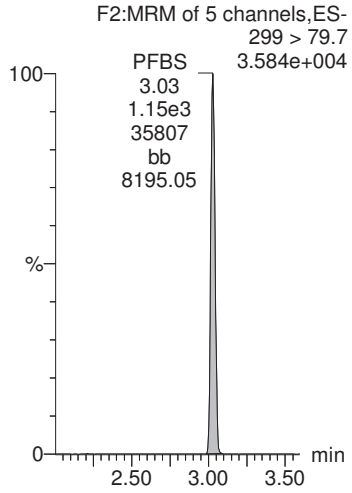
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

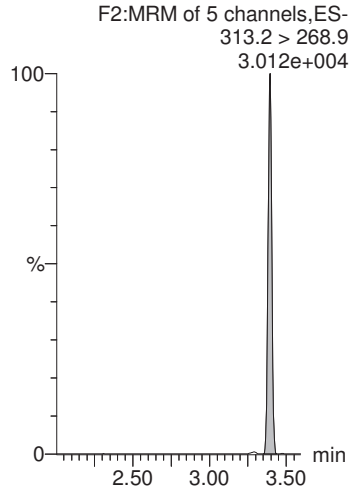
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

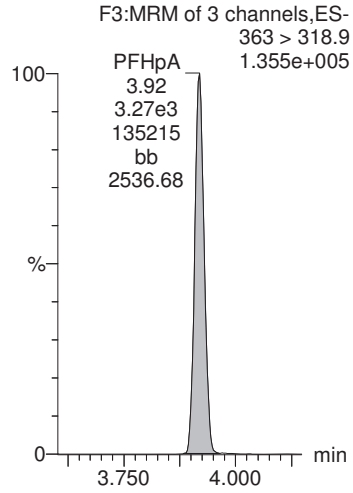
PFBS



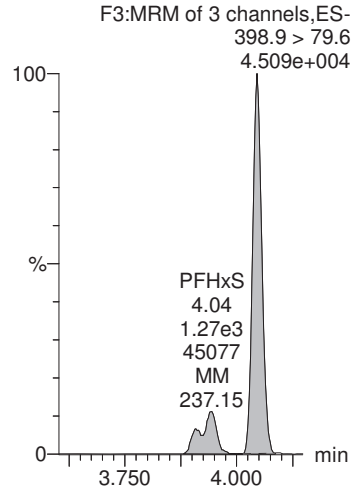
PFHxA



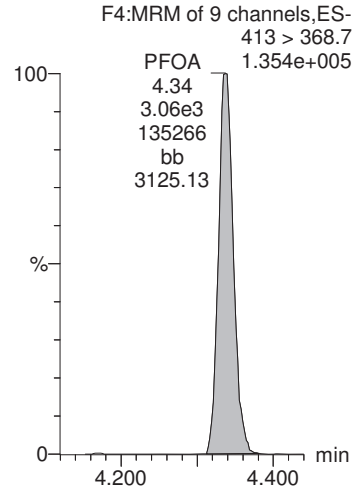
PFHpA



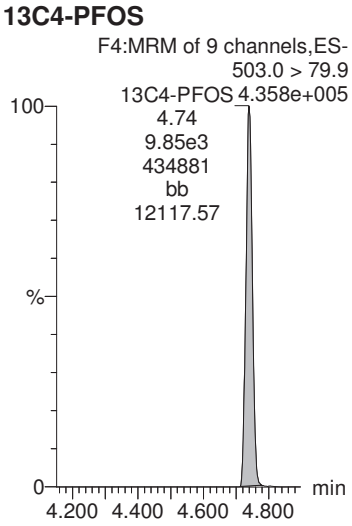
PFHxS



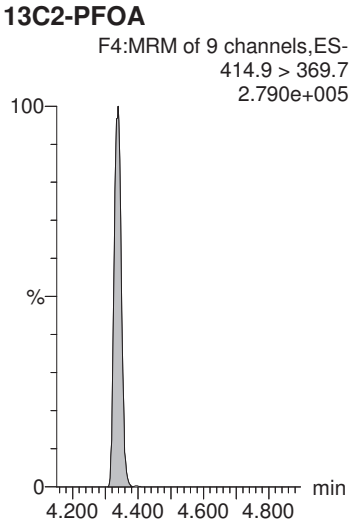
PFOA



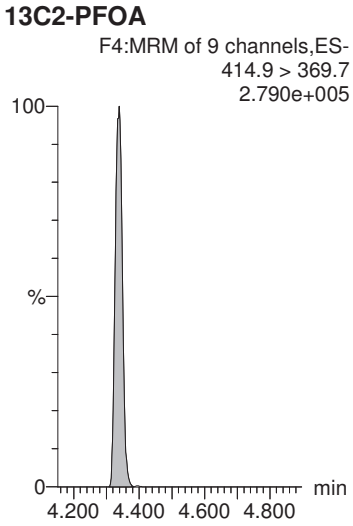
13C4-PFOS



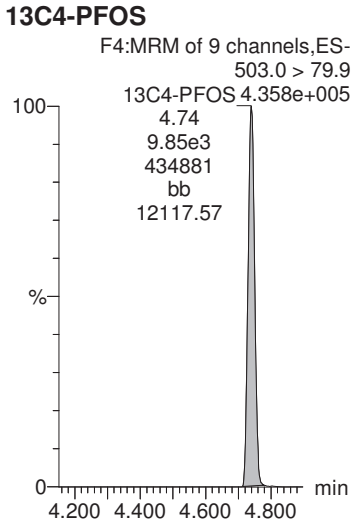
13C2-PFOA



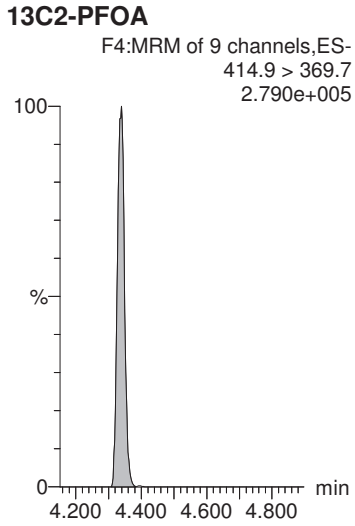
13C2-PFOA



13C4-PFOS



13C2-PFOA



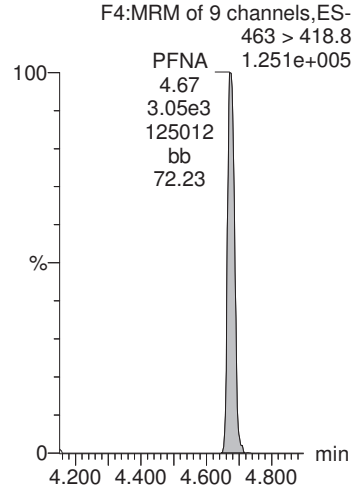
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

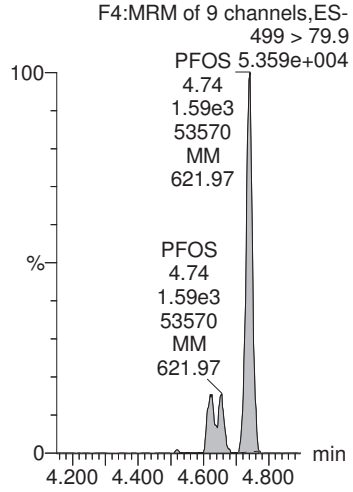
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

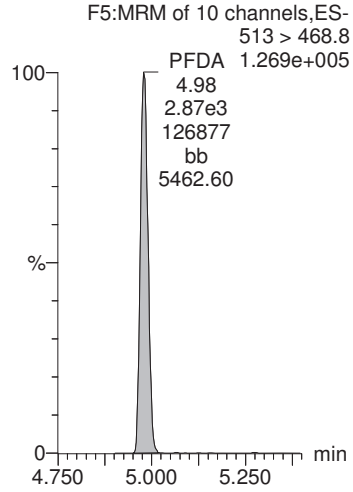
PFNA



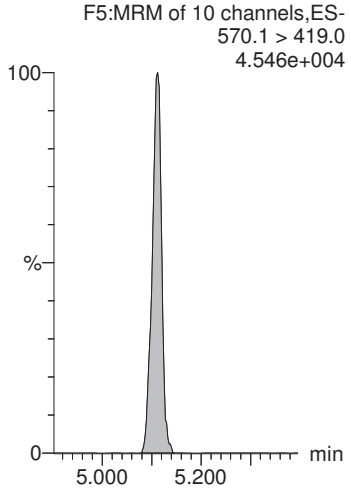
PFOS



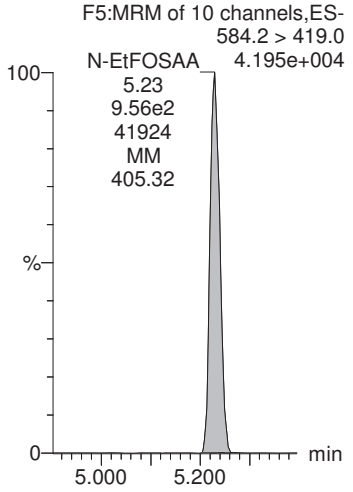
PFDA



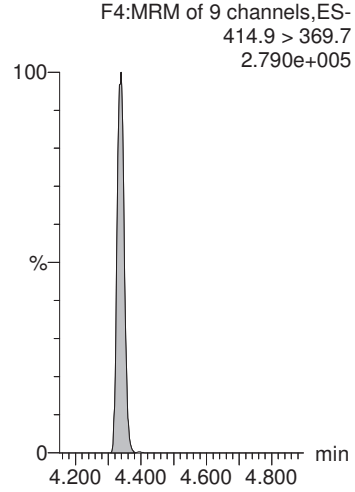
N-MeFOSAA



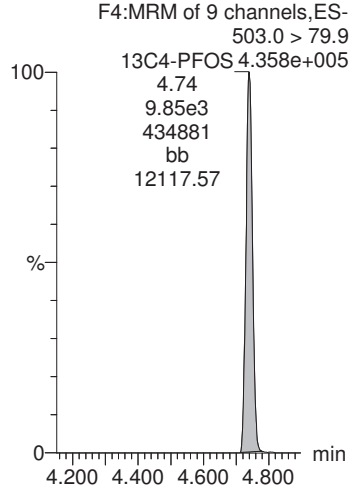
N-EtFOSAA



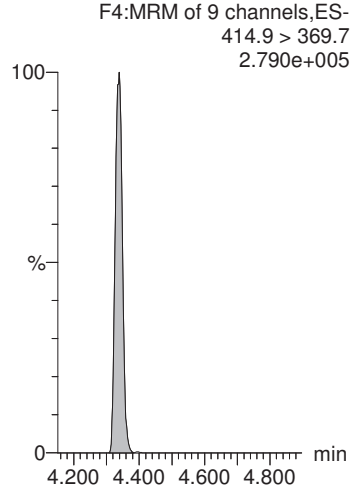
13C2-PFOA



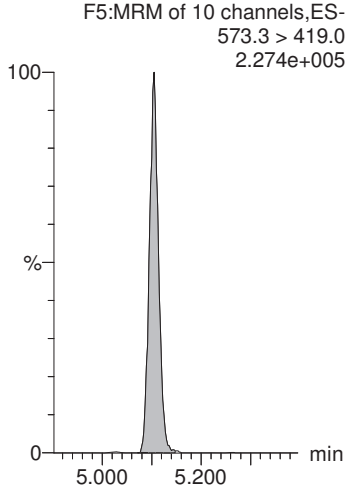
13C4-PFOS



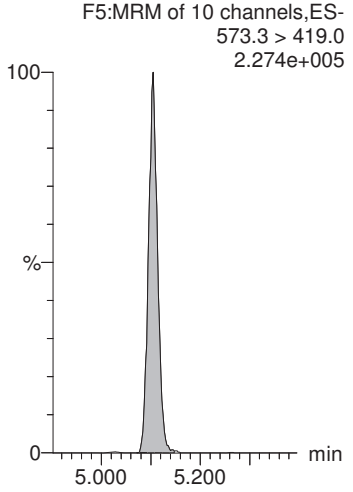
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



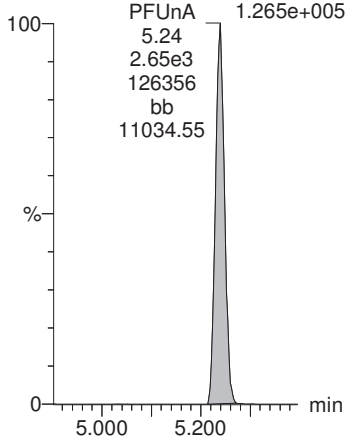
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

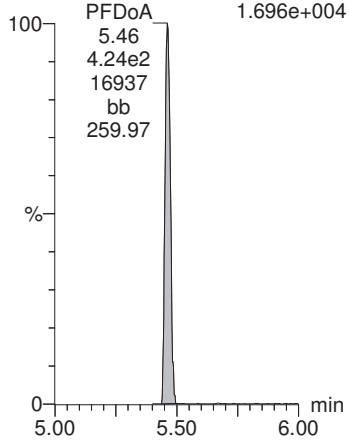
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

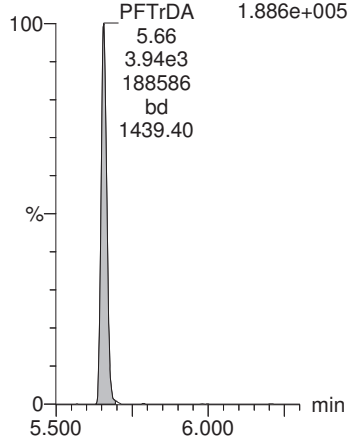
PFUnA



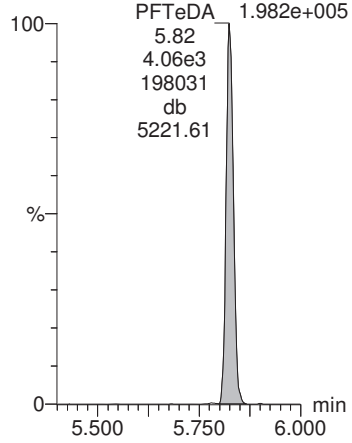
PFDoA



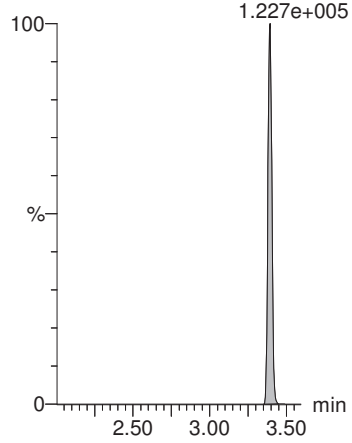
PFTrDA



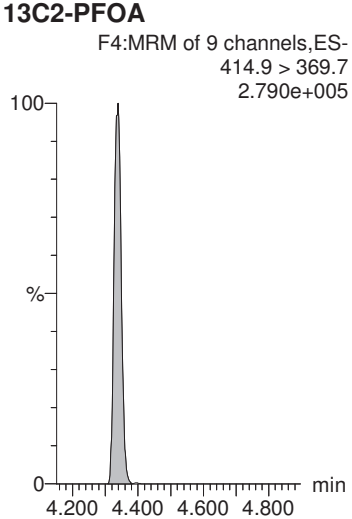
PFTeDA



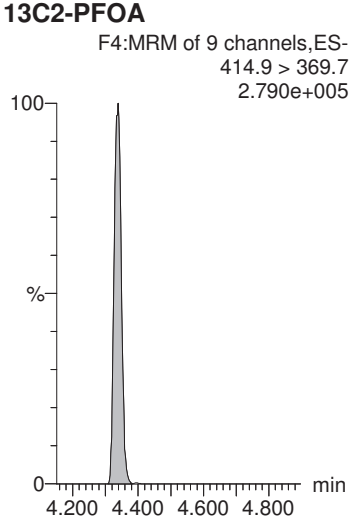
13C2-PFHxA



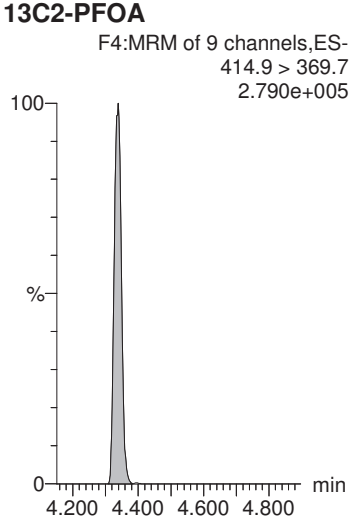
13C2-PFOA



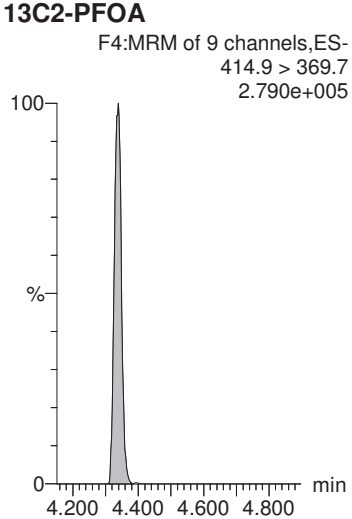
13C2-PFOA



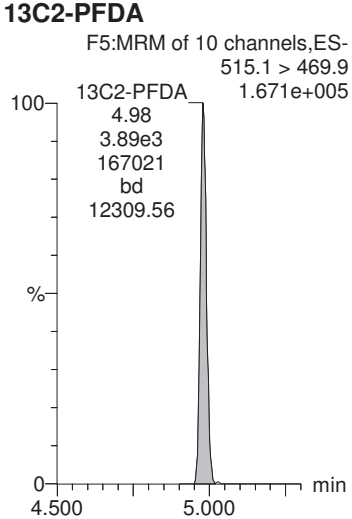
13C2-PFOA



13C2-PFOA



13C2-PFDA



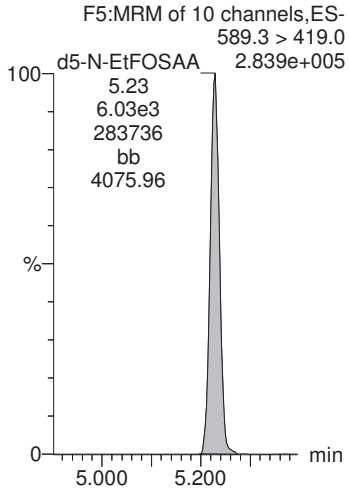
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

d5-N-EtFOSAA



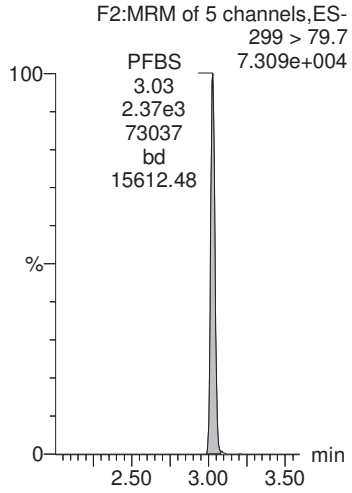
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

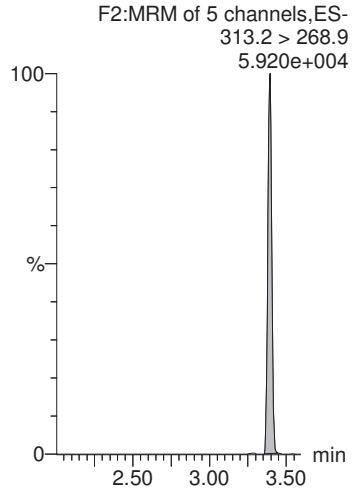
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

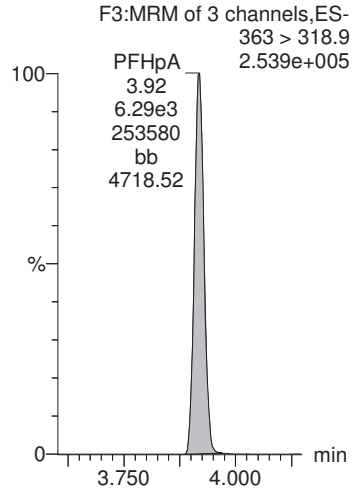
PFBS



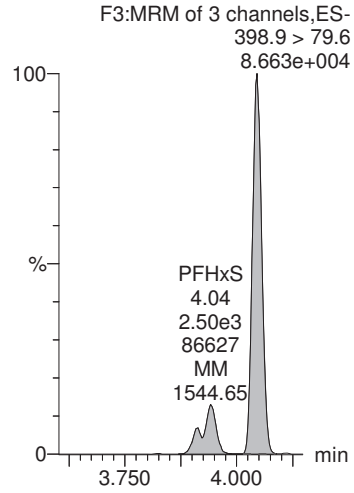
PFHxA



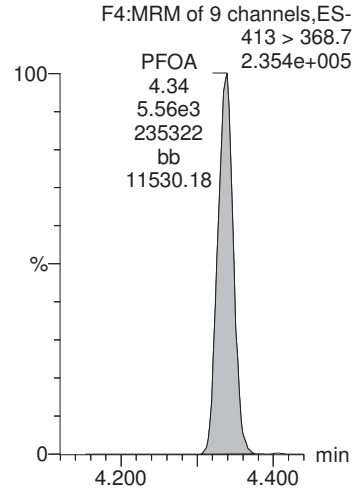
PFHpA



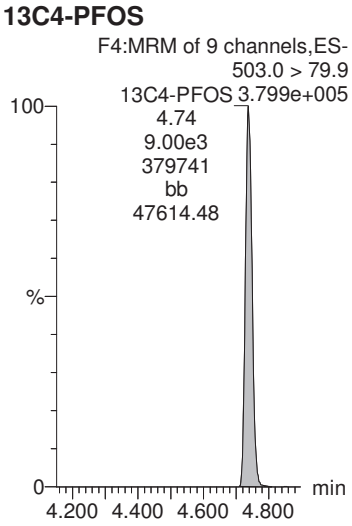
PFHxS



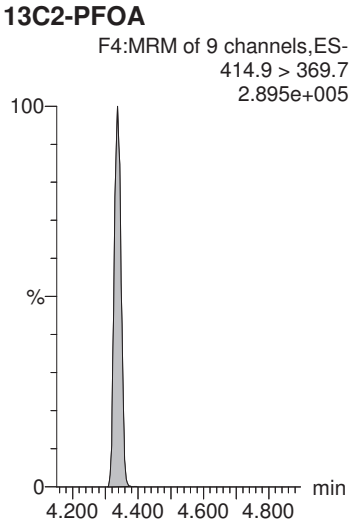
PFOA



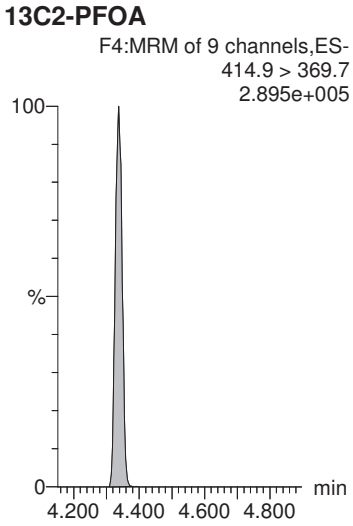
13C4-PFOS



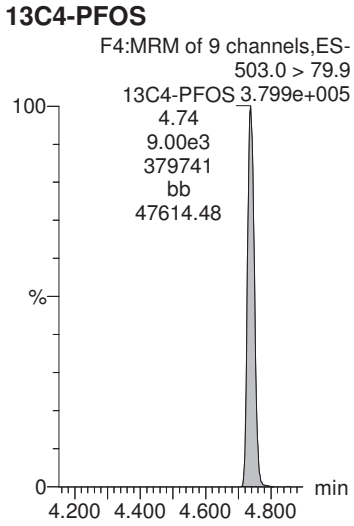
13C2-PFOA



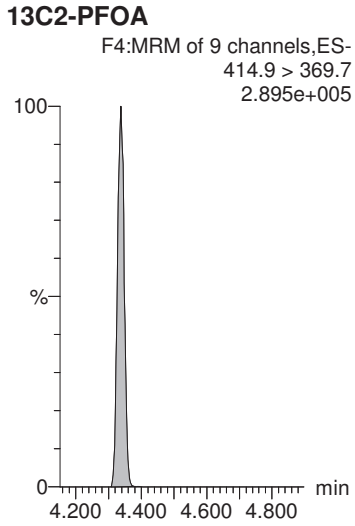
13C2-PFOA



13C4-PFOS



13C2-PFOA



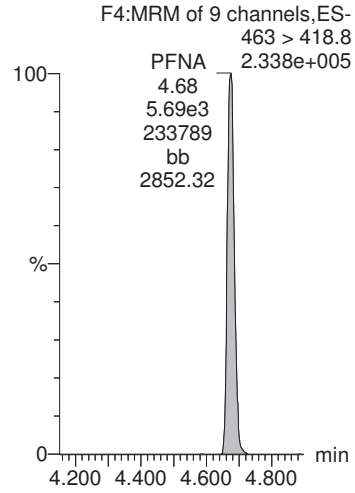
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

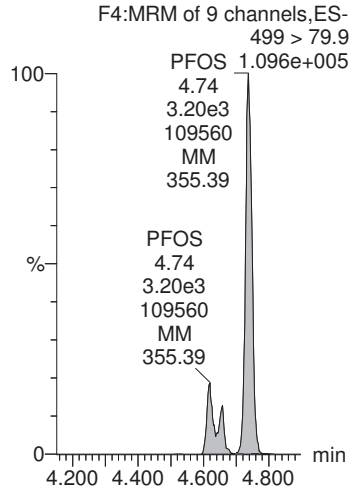
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

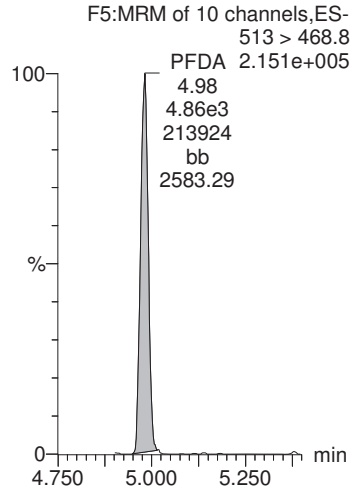
PFNA



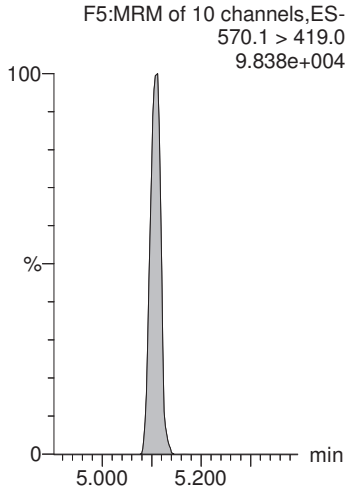
PFOS



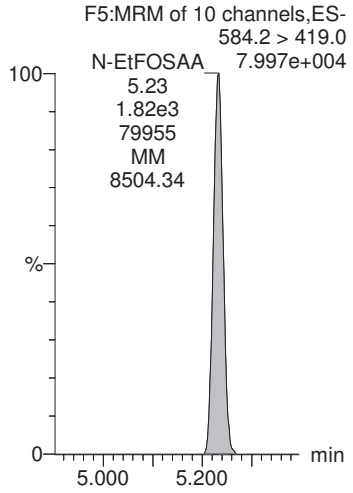
PFDA



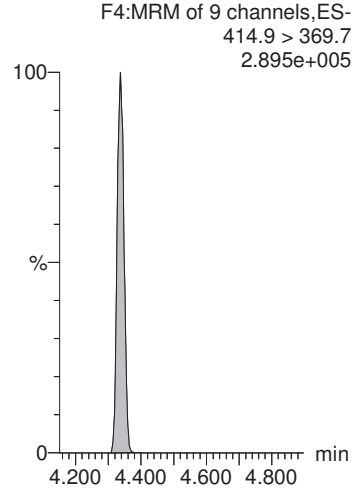
N-MeFOSAA



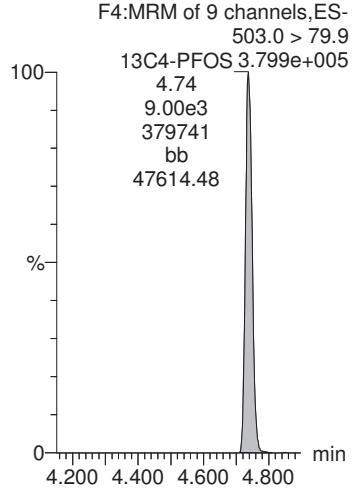
N-EtFOSAA



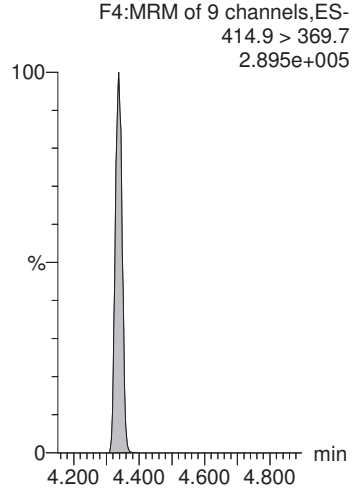
13C2-PFOA



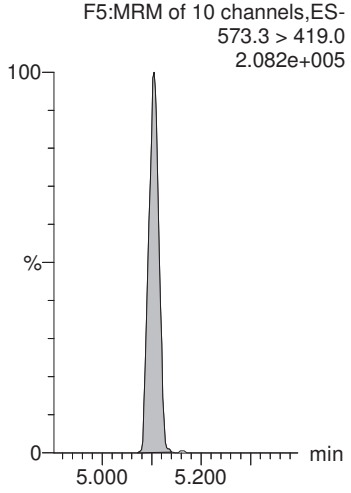
13C4-PFOS



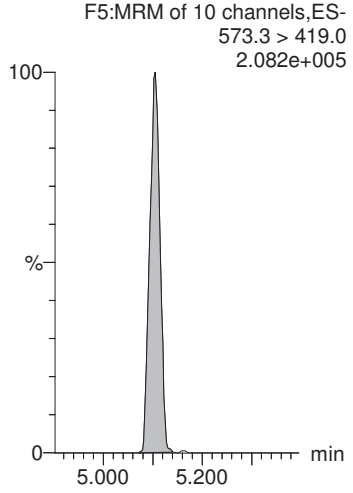
13C2-PFOA



d3-N-MeFOSAA



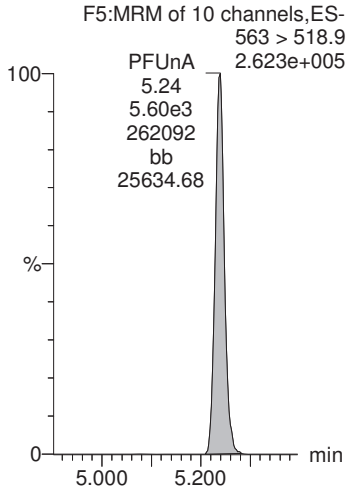
d3-N-MeFOSAA



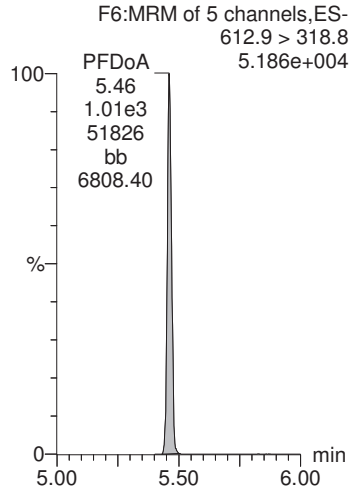
GM 1/26/2018

Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

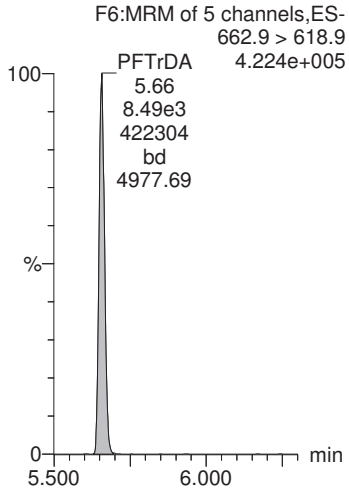
PFUnA



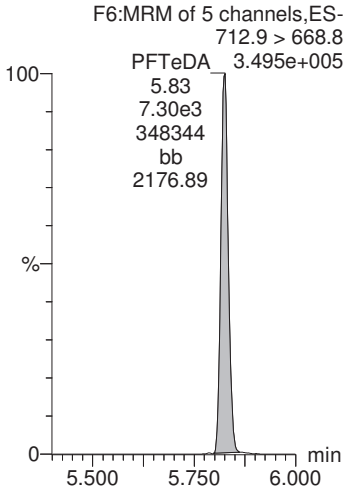
PFDoA



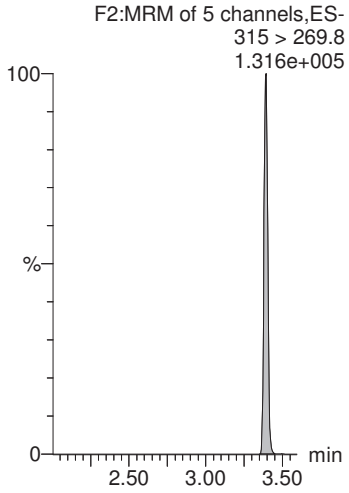
PFTrDA



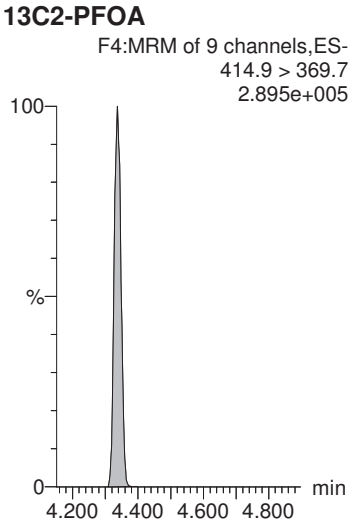
PFTeDA



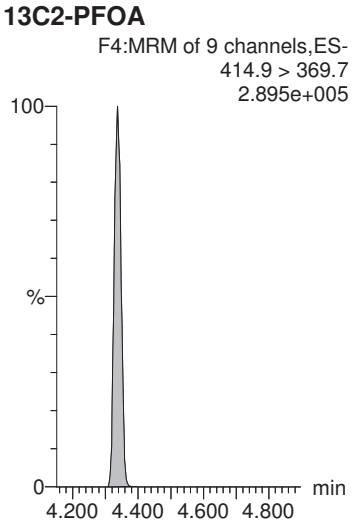
13C2-PFHxA



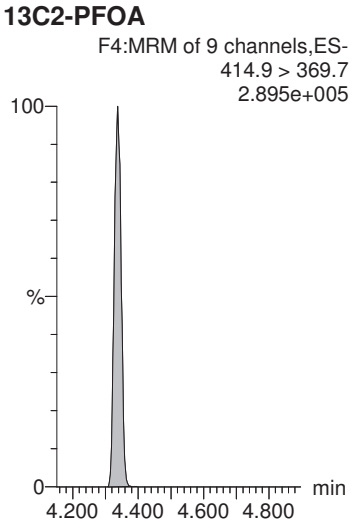
13C2-PFOA



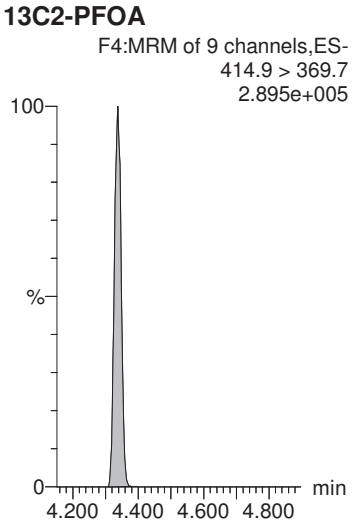
13C2-PFOA



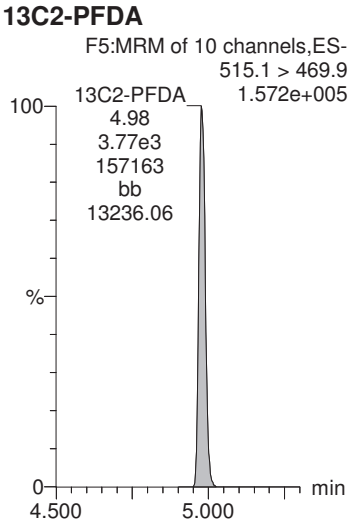
13C2-PFOA



13C2-PFOA



13C2-PFDA



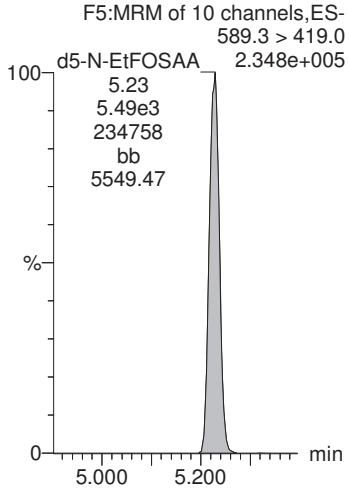
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

d5-N-EtFOSAA



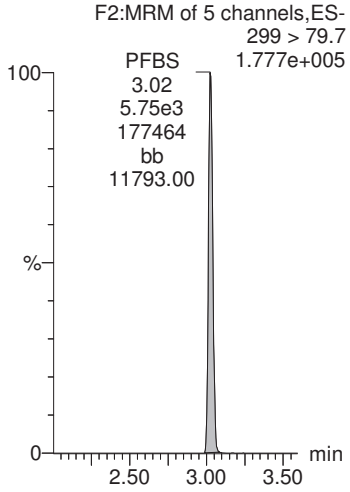
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

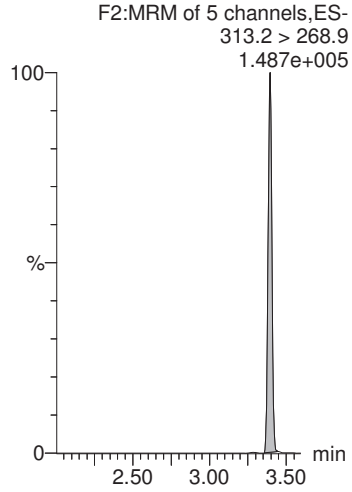
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

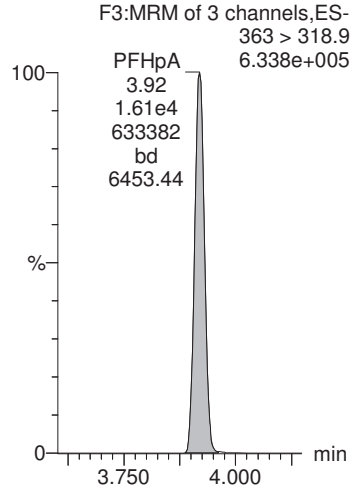
PFBS



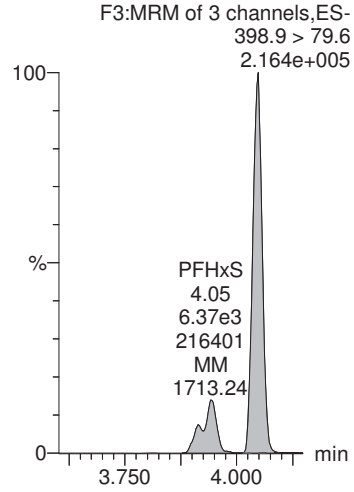
PFHxA



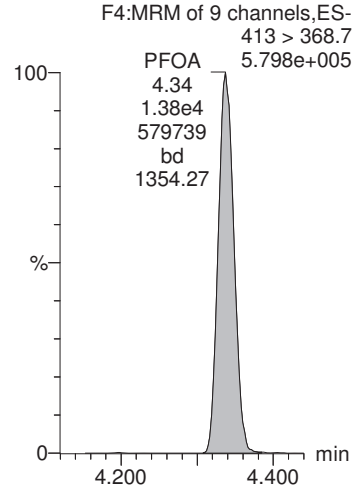
PFHpA



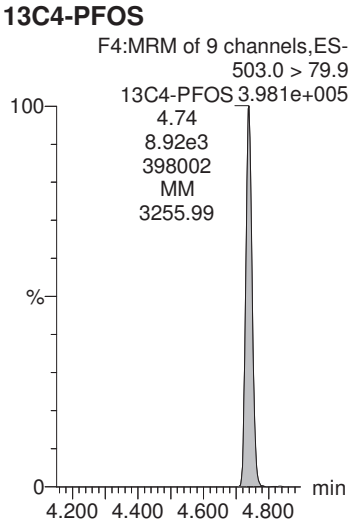
PFHxS



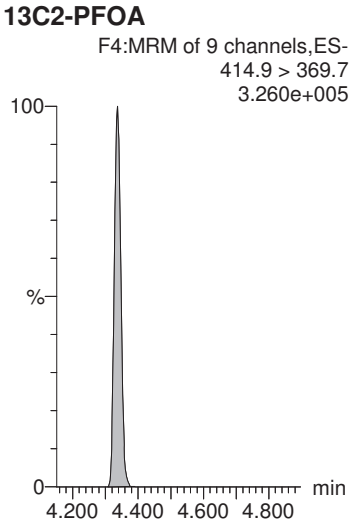
PFOA



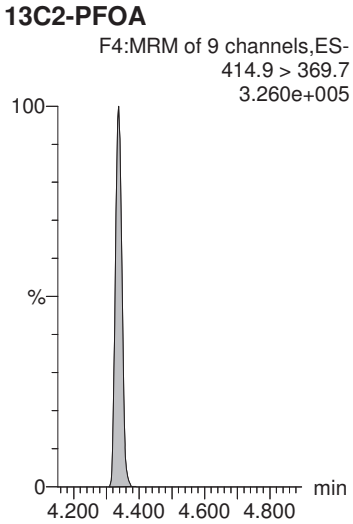
13C4-PFOS



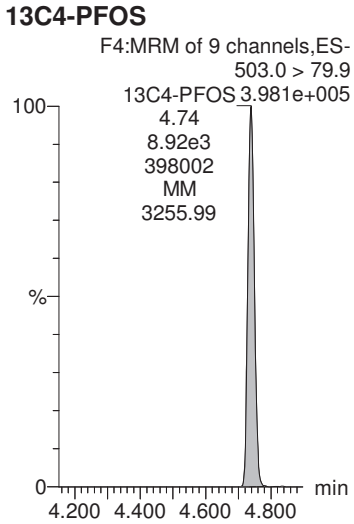
13C2-PFOA



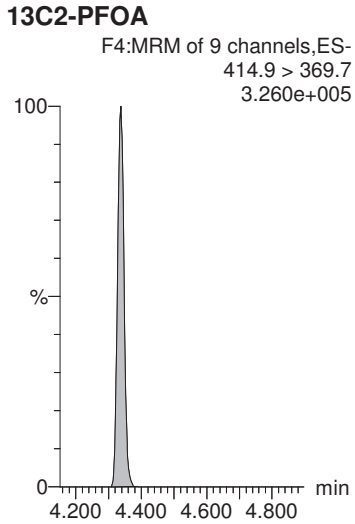
13C2-PFOA



13C4-PFOS



13C2-PFOA



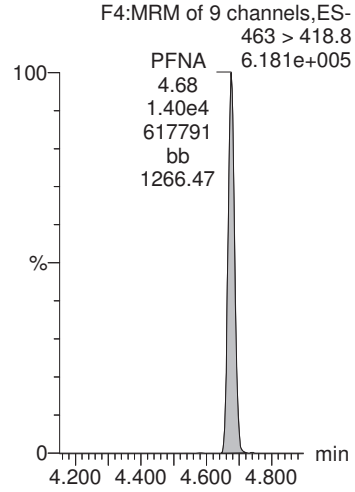
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

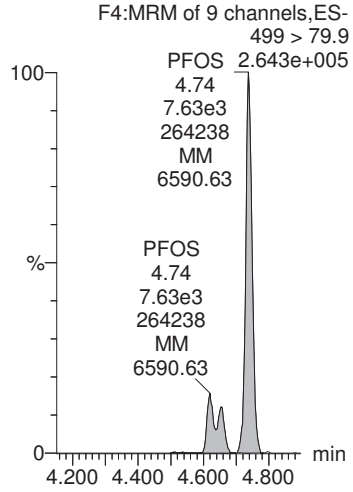
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

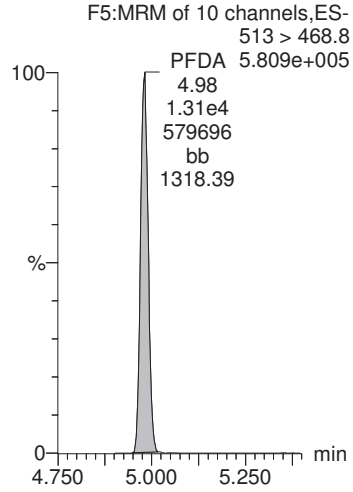
PFNA



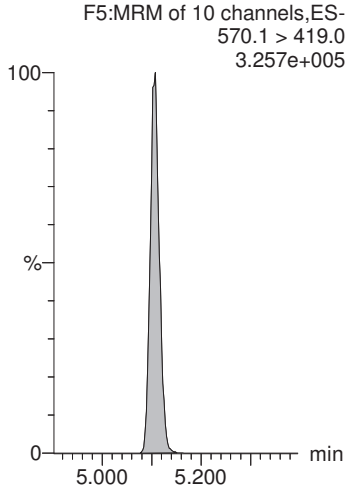
PFOS



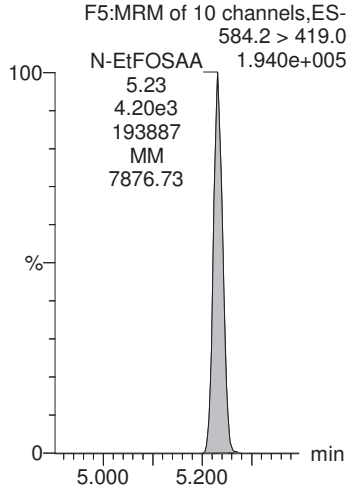
PFDA



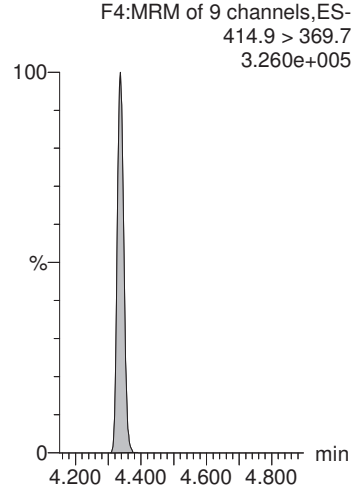
N-MeFOSAA



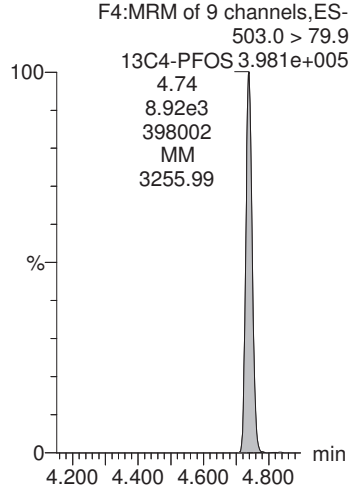
N-EtFOSAA



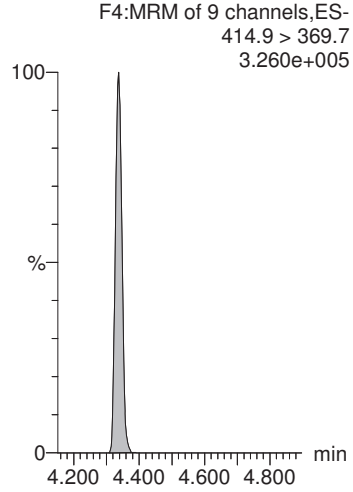
13C2-PFOA



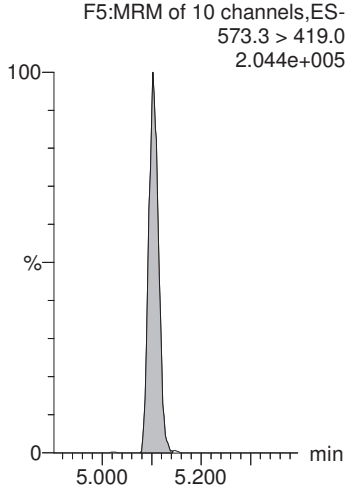
13C4-PFOS



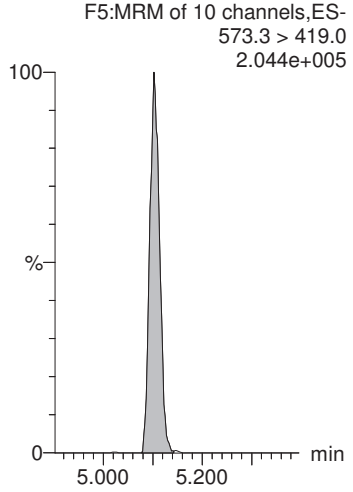
13C2-PFOA



d3-N-MeFOSAA



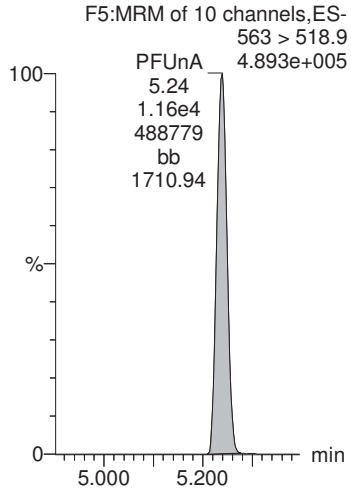
d3-N-MeFOSAA



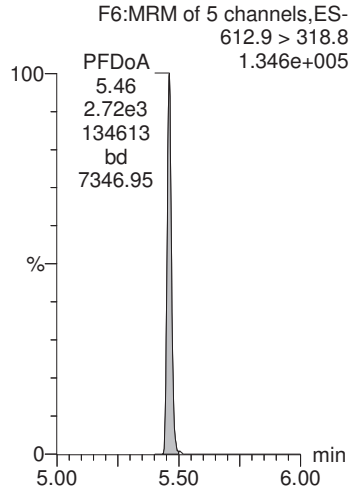
GM 1/26/2018

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

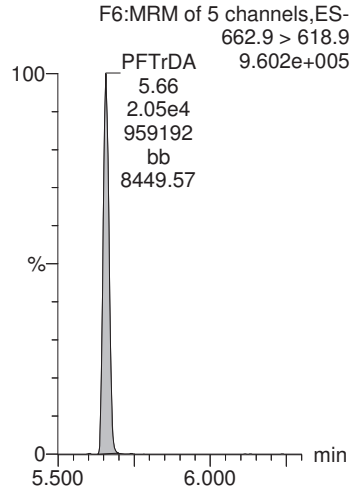
PFUnA



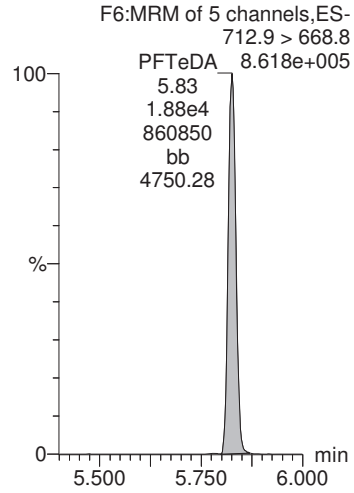
PFDoA



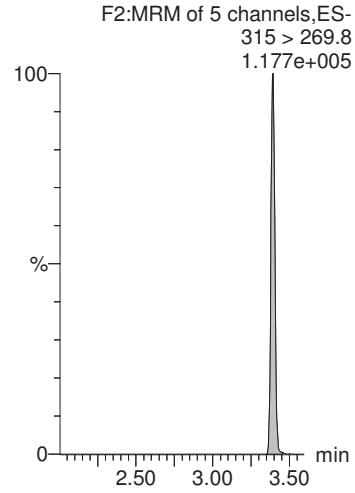
PFTrDA



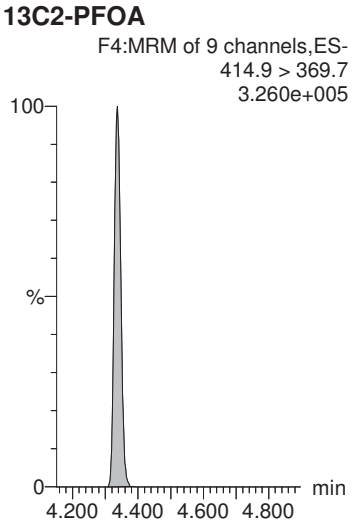
PFTeDA



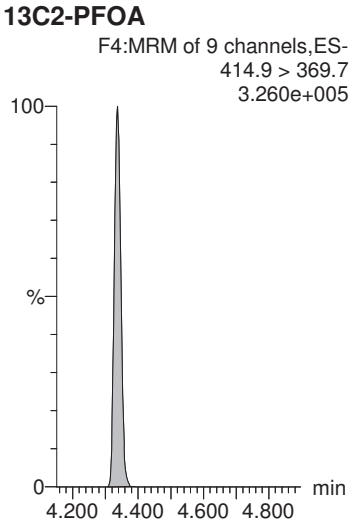
13C2-PFHxA



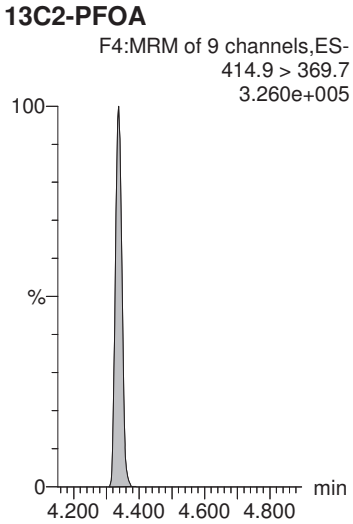
13C2-PFOA



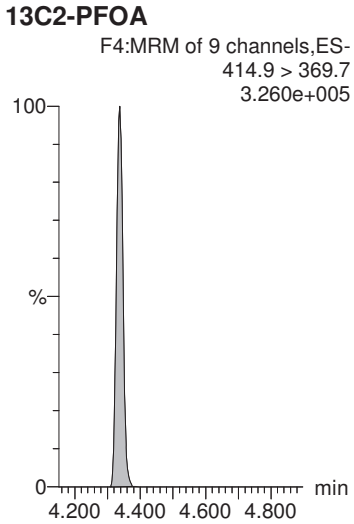
13C2-PFOA



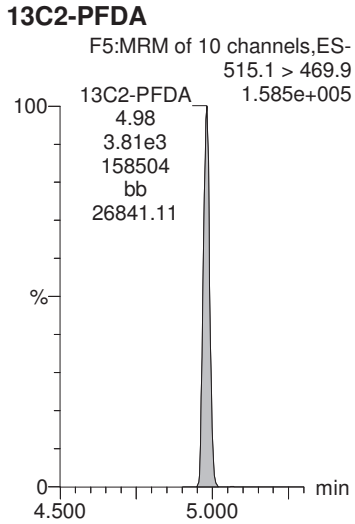
13C2-PFOA



13C2-PFOA



13C2-PFDA



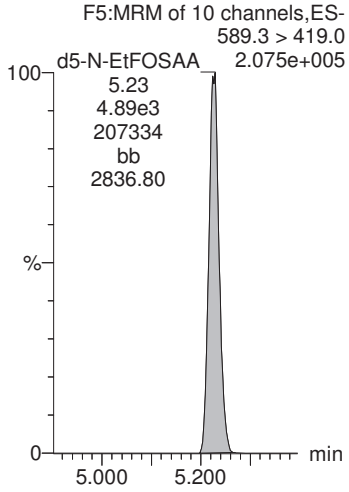
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

d5-N-EtFOSAA



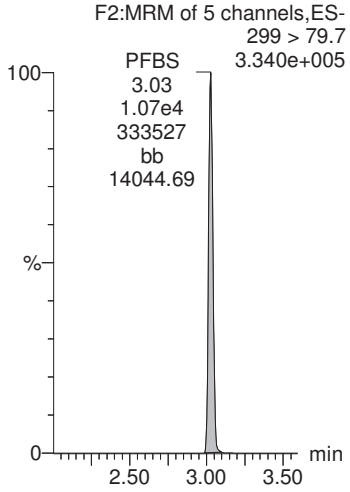
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

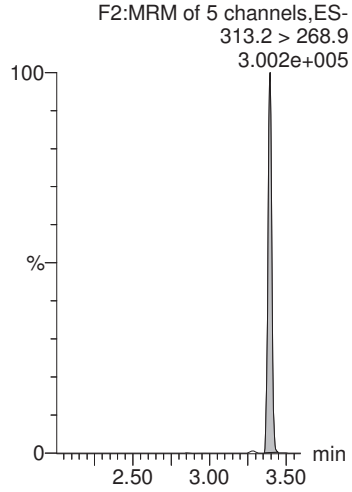
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207

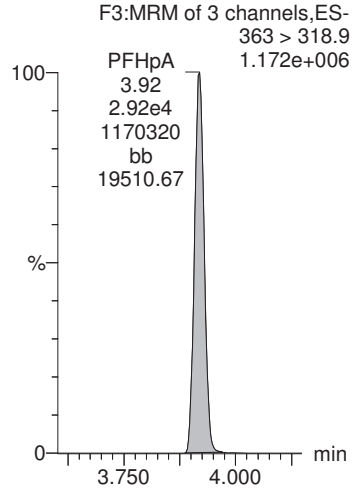
PFBS



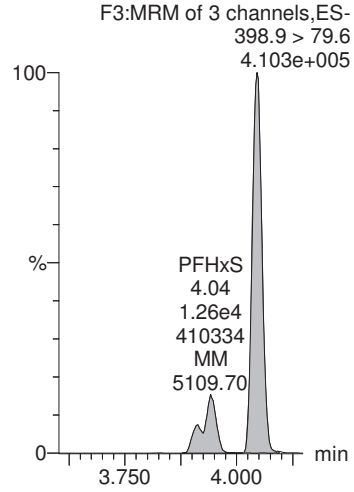
PFHxA



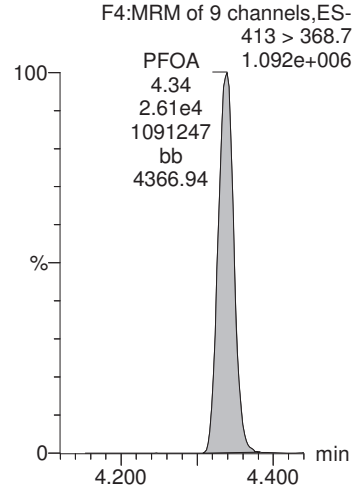
PFHpA



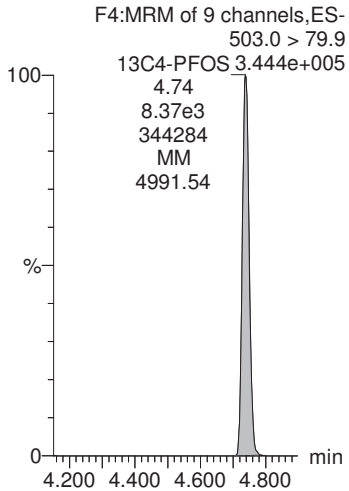
PFHxS



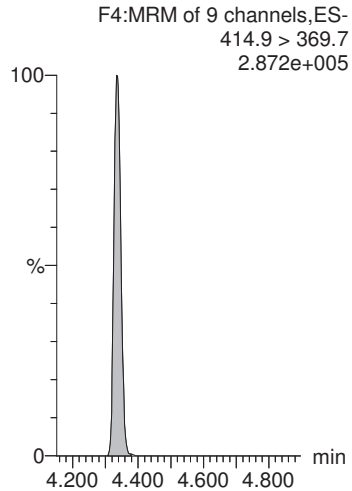
PFOA



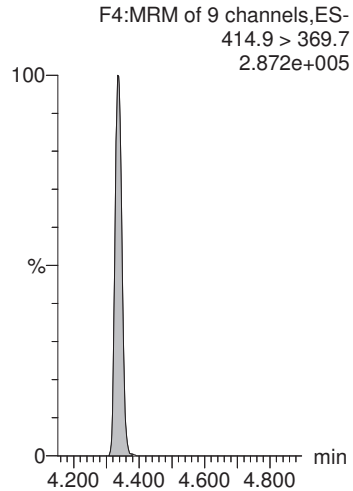
13C4-PFOS



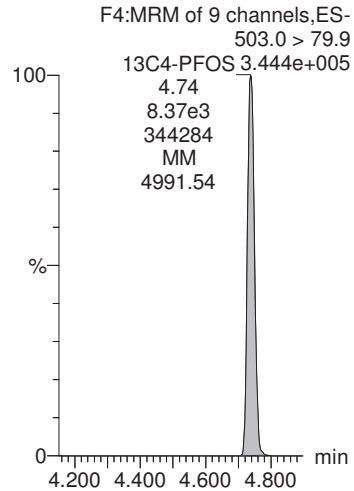
13C2-PFOA



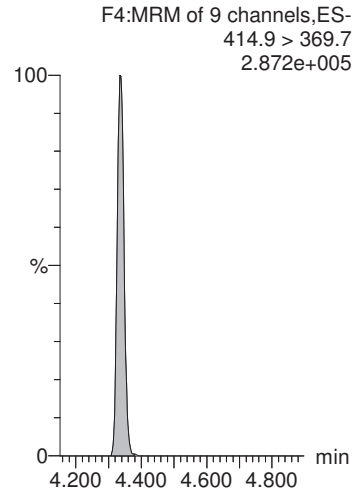
13C2-PFOA



13C4-PFOS



13C2-PFOA



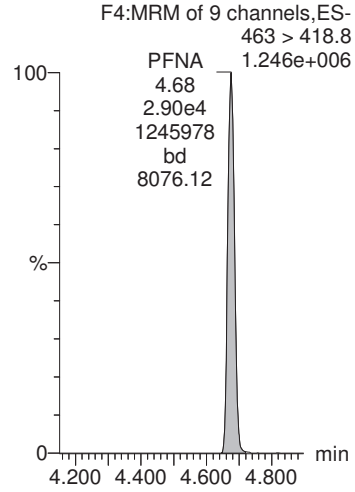
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

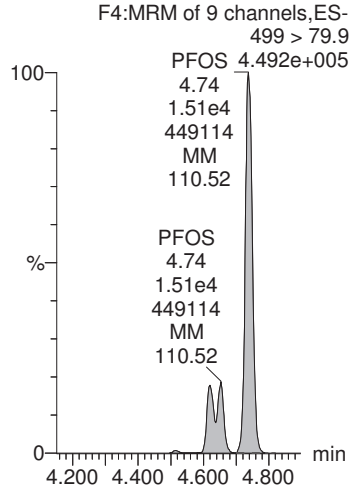
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207

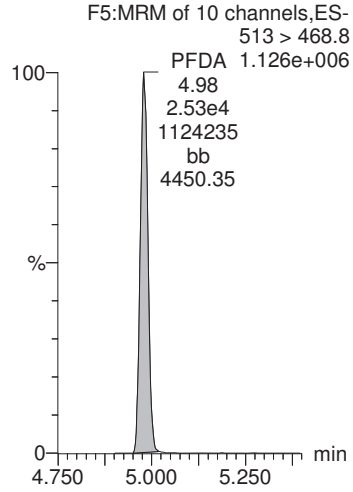
PFNA



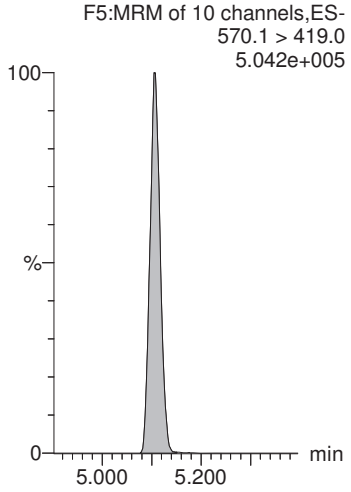
PFOS



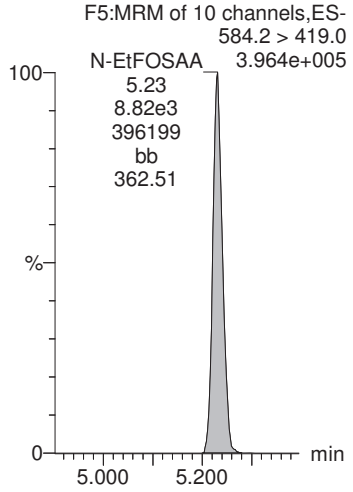
PFDA



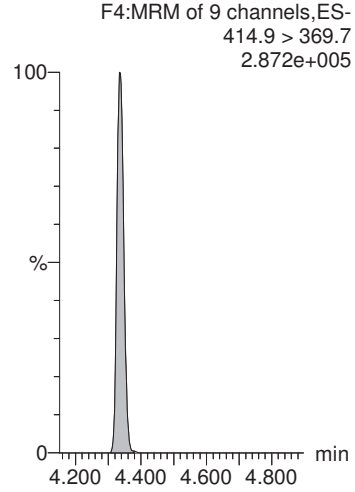
N-MeFOSAA



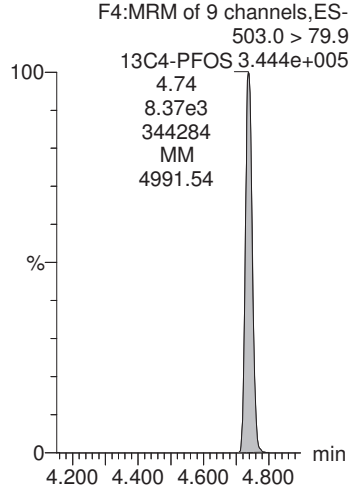
N-EtFOSAA



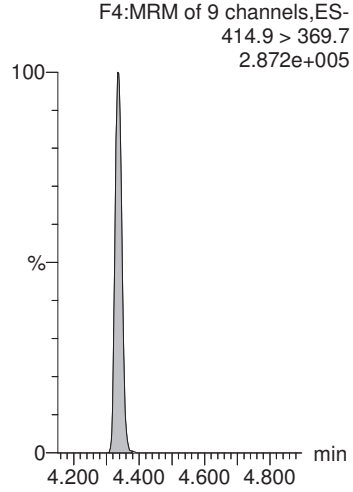
13C2-PFOA



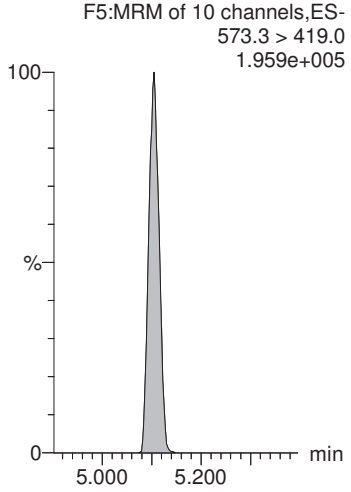
13C4-PFOS



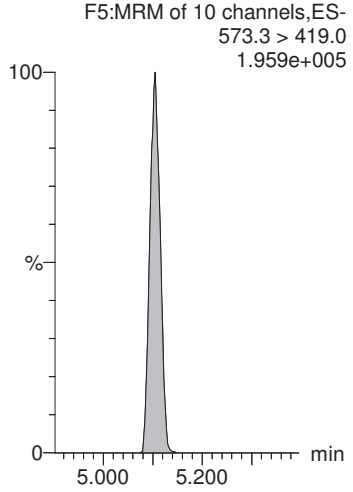
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



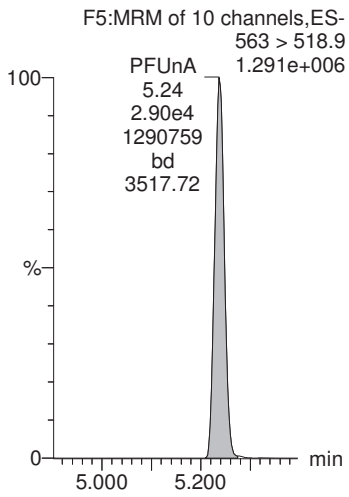
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

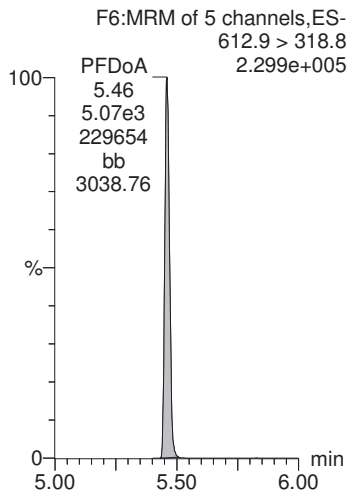
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207

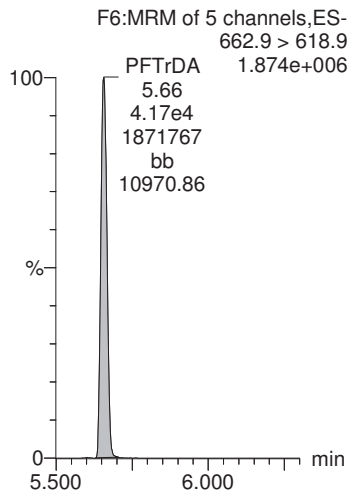
PFUnA



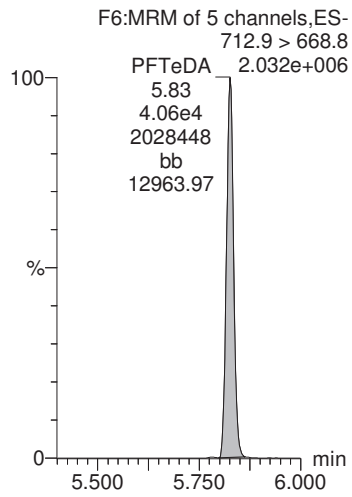
PFDoA



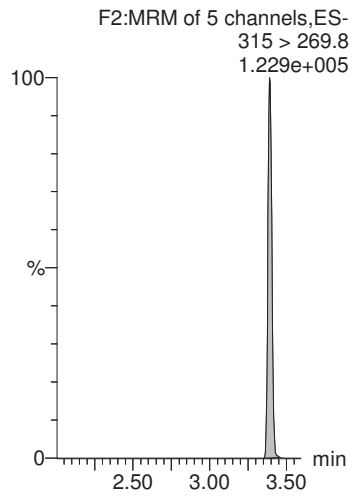
PFTrDA



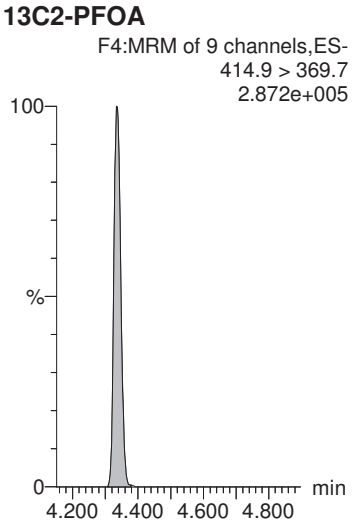
PFTeDA



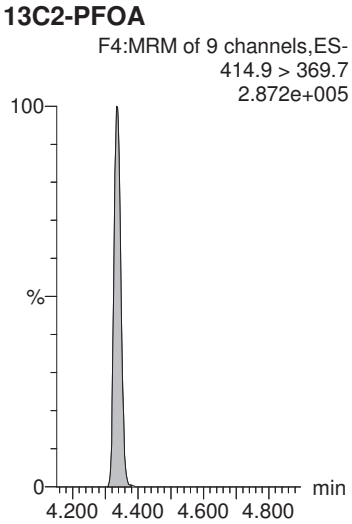
13C2-PFHxA



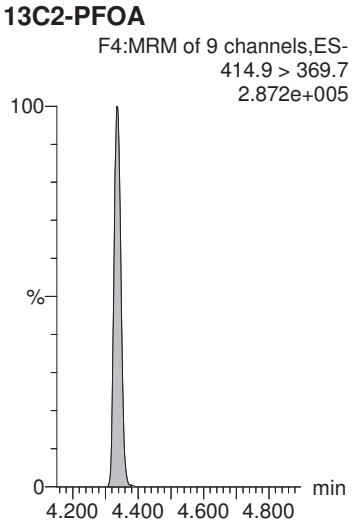
13C2-PFOA



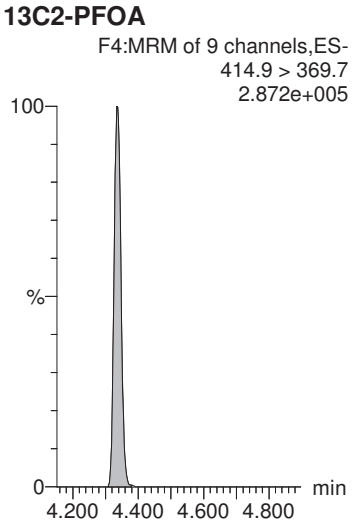
13C2-PFOA



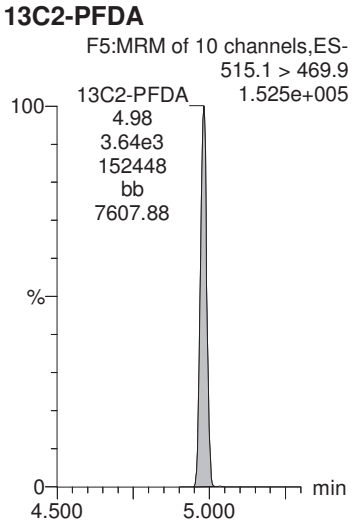
13C2-PFOA



13C2-PFOA



13C2-PFDA



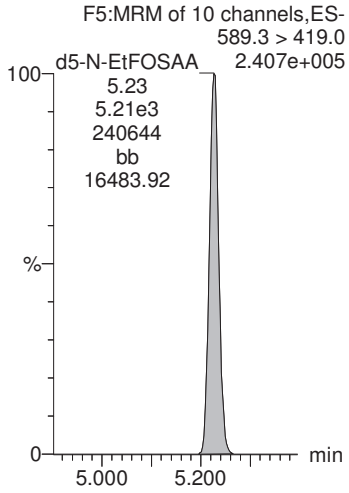
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207

d5-N-EtFOSAA



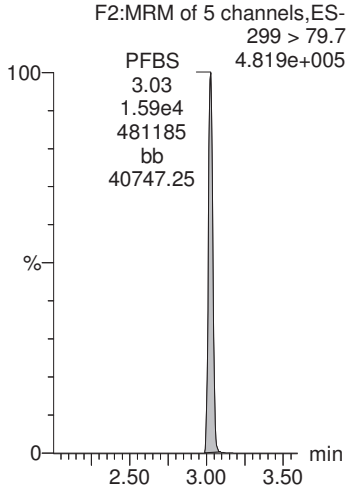
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

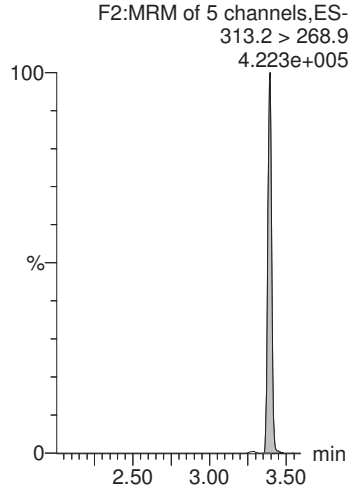
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

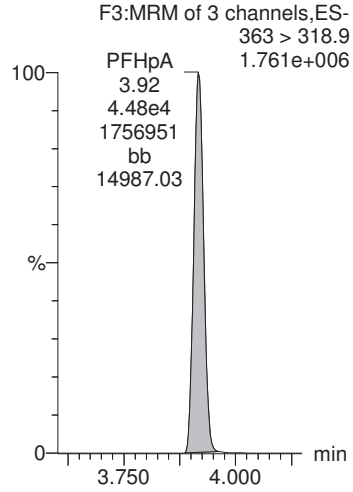
PFBS



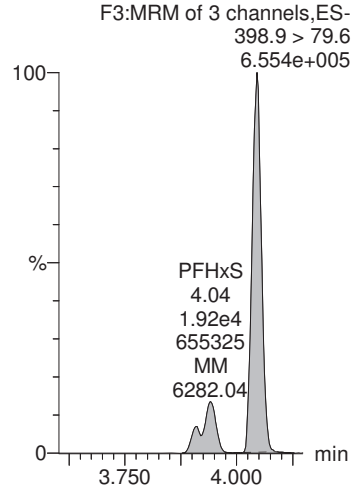
PFHxA



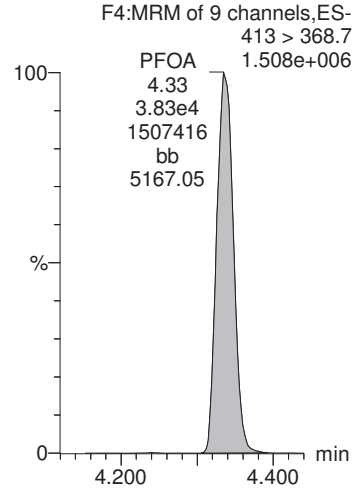
PFHpA



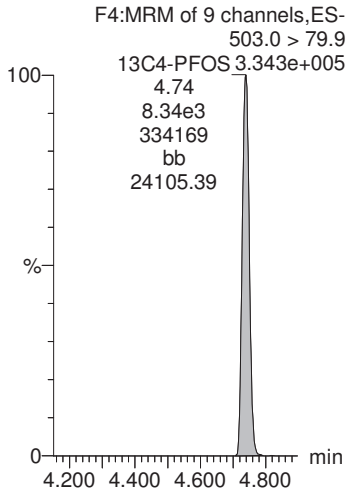
PFHxS



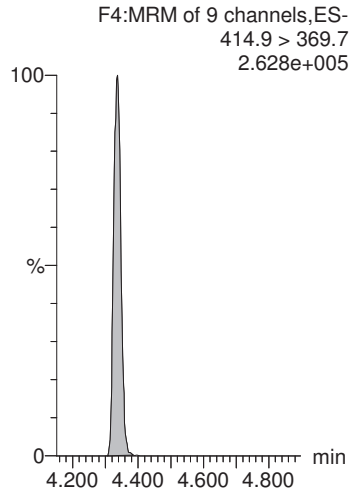
PFOA



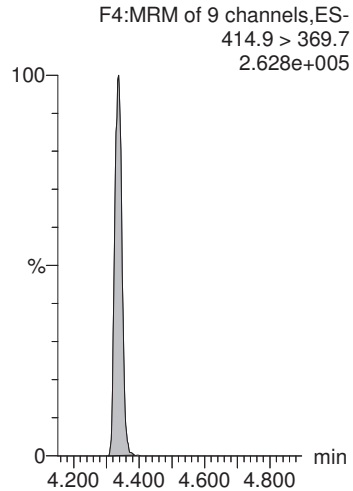
13C4-PFOS



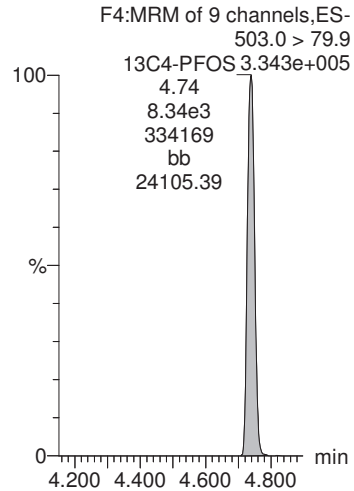
13C2-PFOA



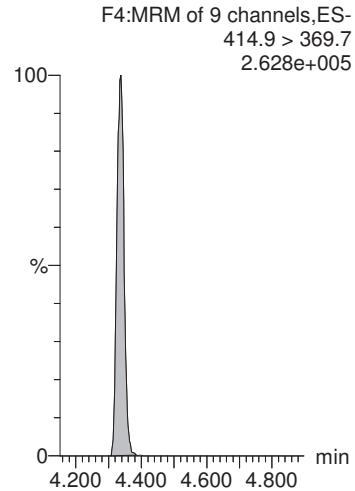
13C2-PFOA



13C4-PFOS



13C2-PFOA



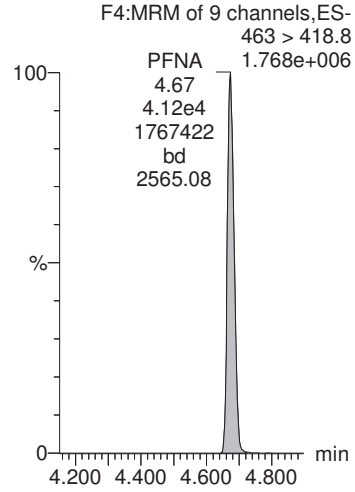
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

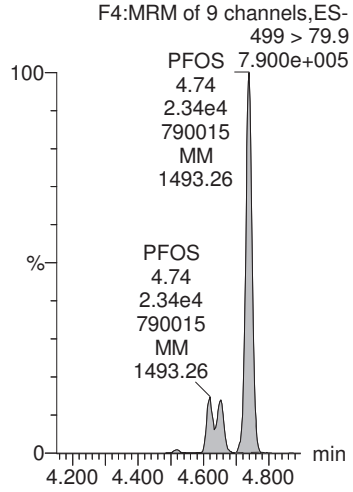
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

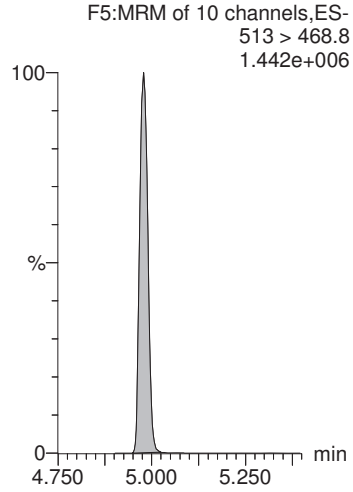
PFNA



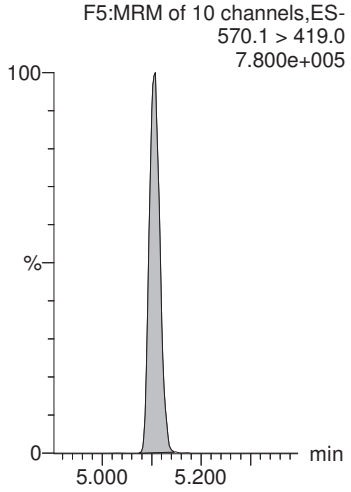
PFOS



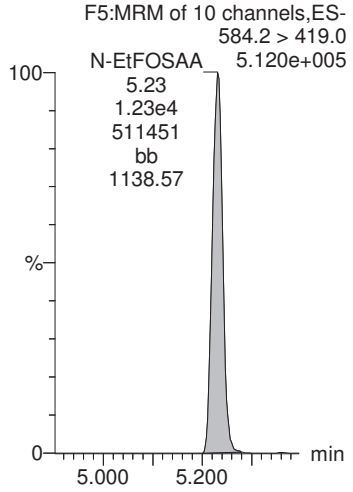
PFDA



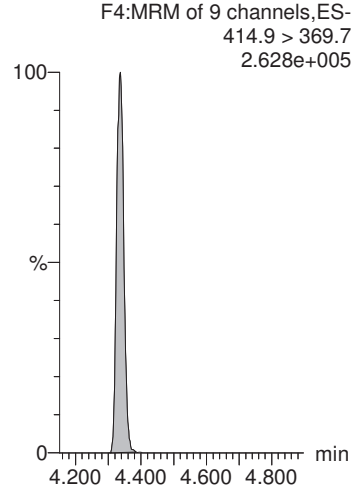
N-MeFOSAA



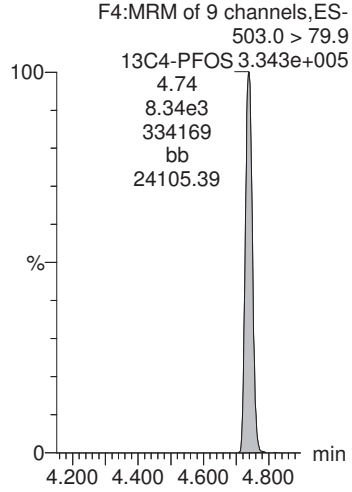
N-EtFOSAA



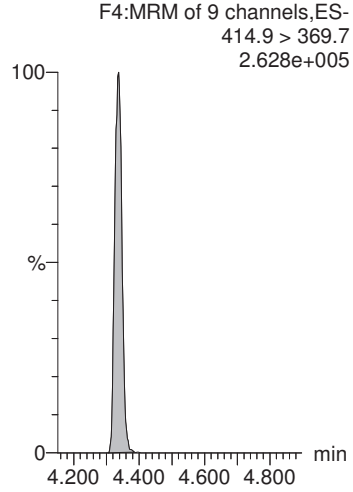
13C2-PFOA



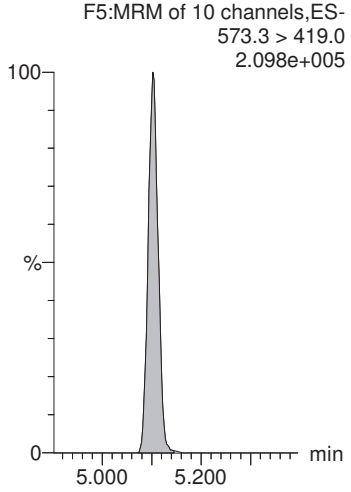
13C4-PFOS



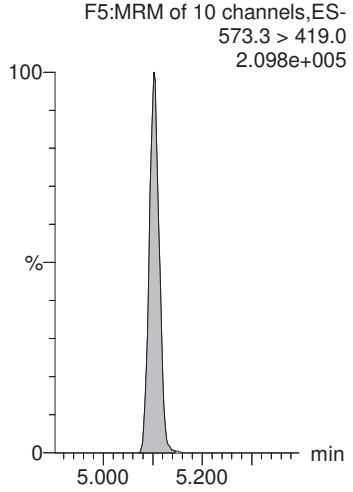
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



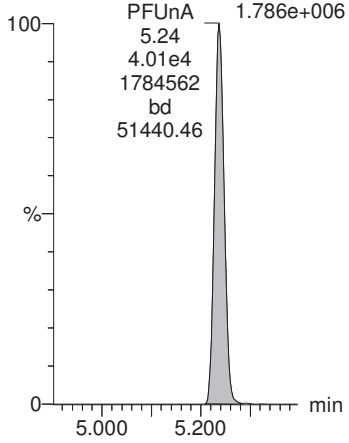
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

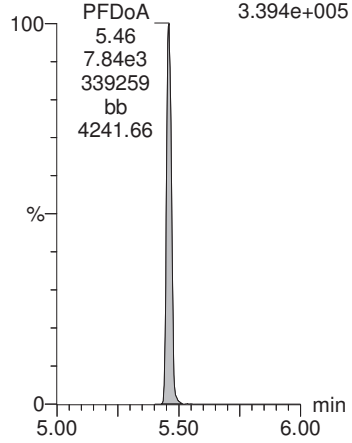
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

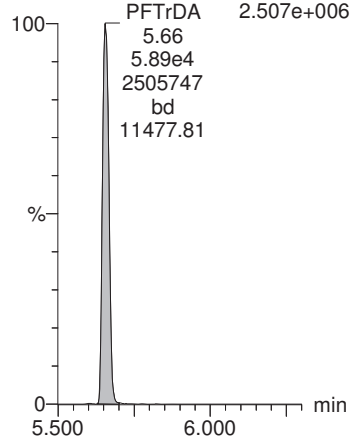
PFUnA



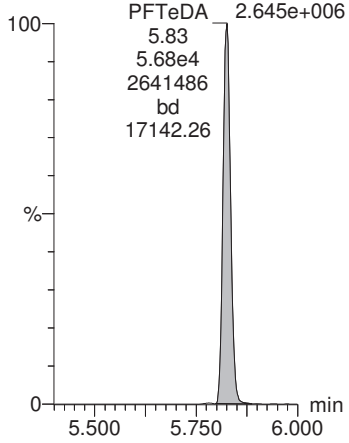
PFDoA



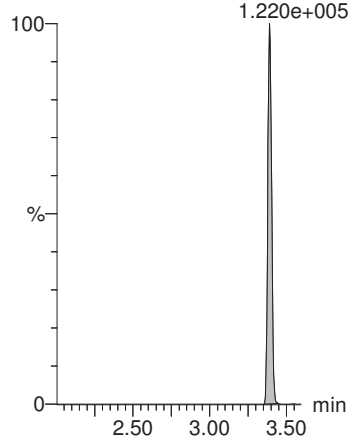
PFTrDA



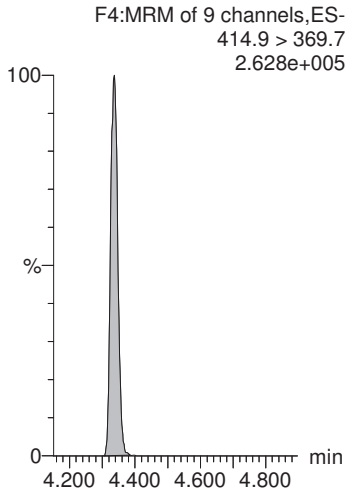
PFTeDA



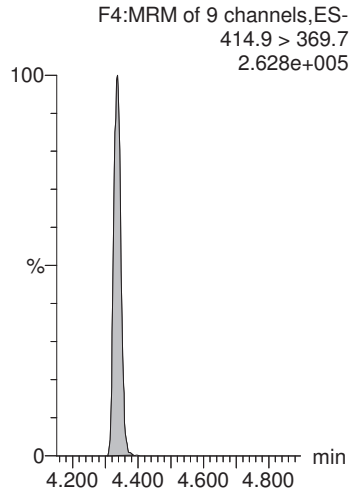
13C2-PFHxA



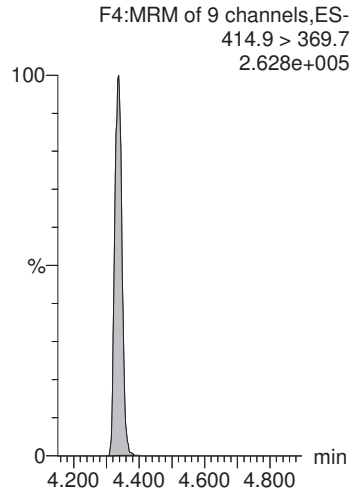
13C2-PFOA



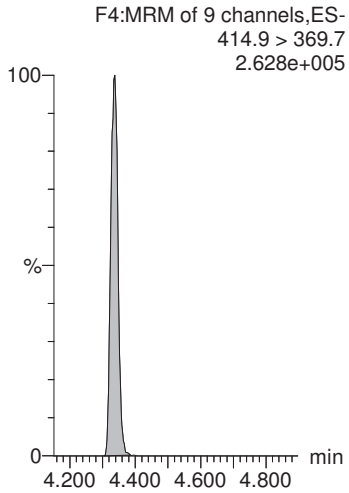
13C2-PFOA



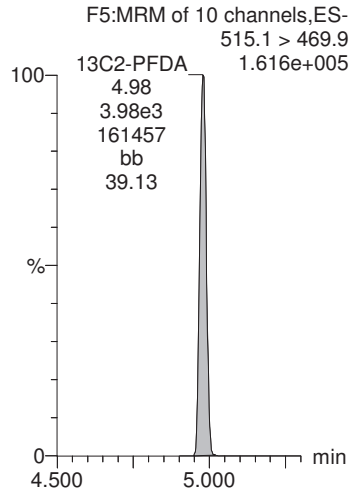
13C2-PFOA



13C2-PFOA



13C2-PFDA



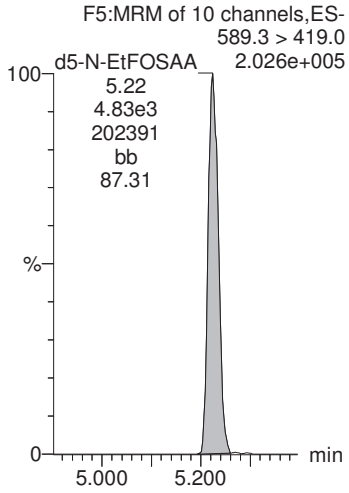
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

d5-N-EtFOSAA



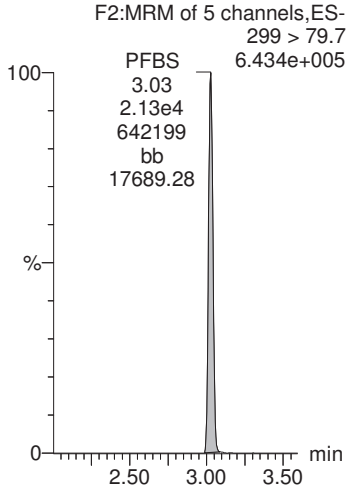
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

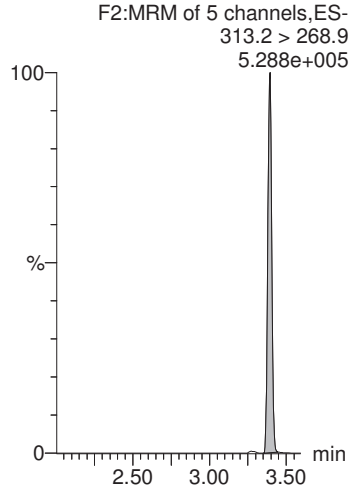
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

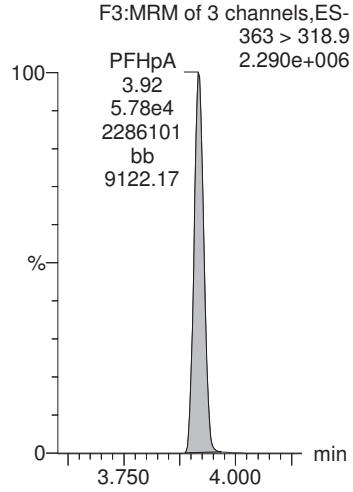
PFBS



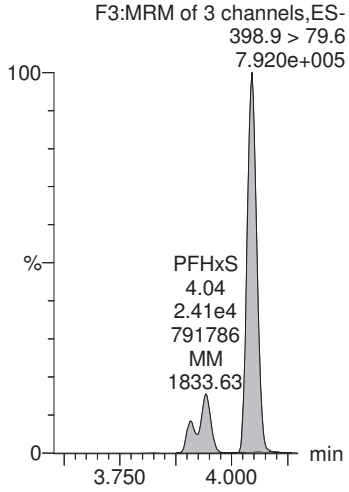
PFHxA



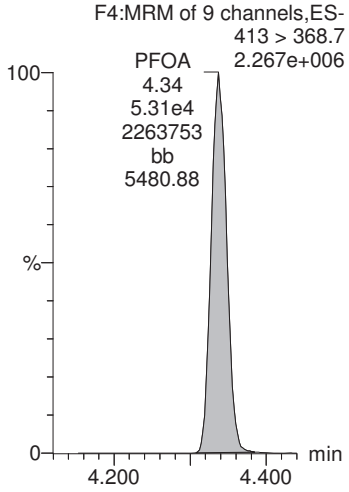
PFHpA



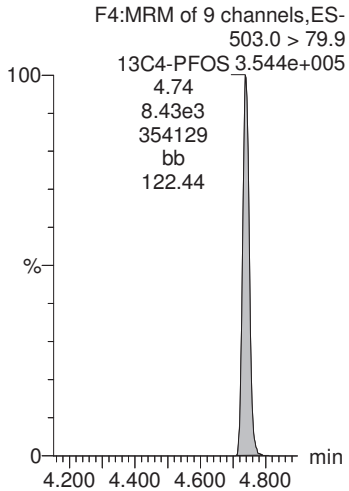
PFHxS



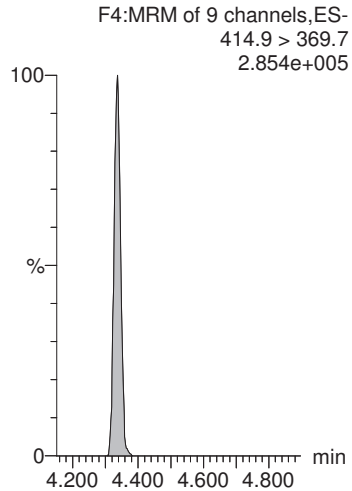
PFOA



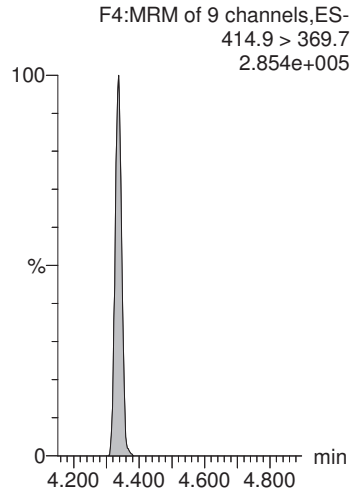
13C4-PFOS



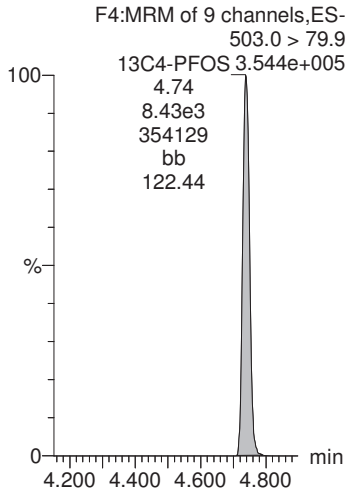
13C2-PFOA



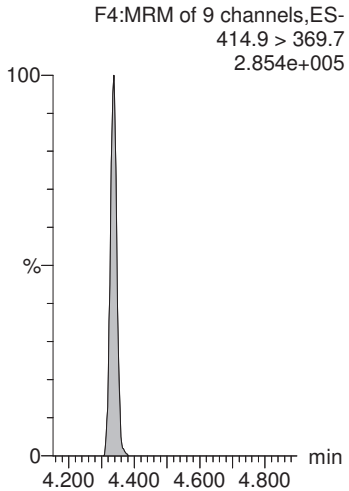
13C2-PFOA



13C4-PFOS



13C2-PFOA



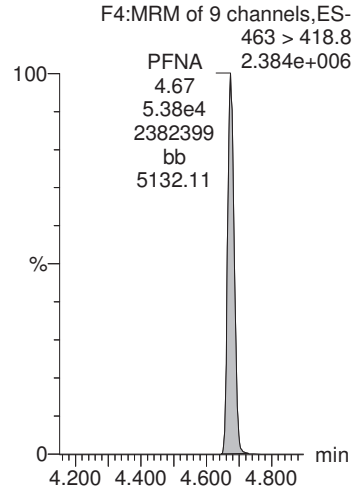
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

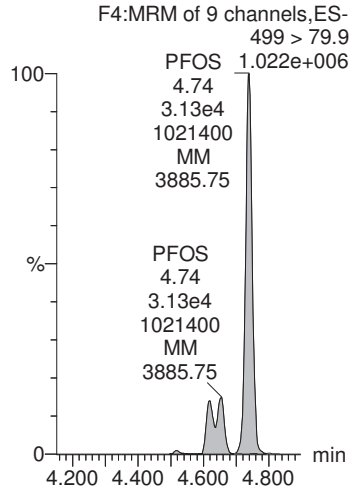
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

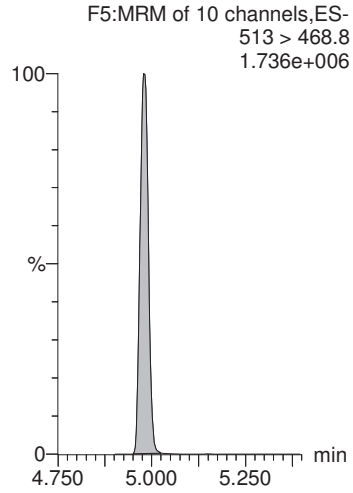
PFNA



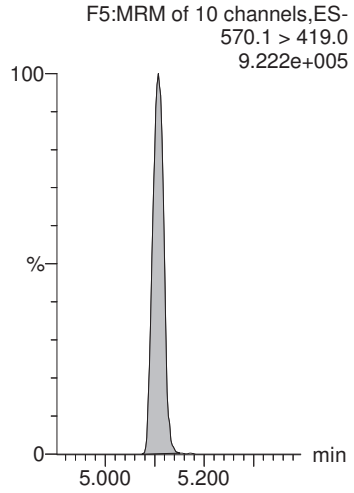
PFOS



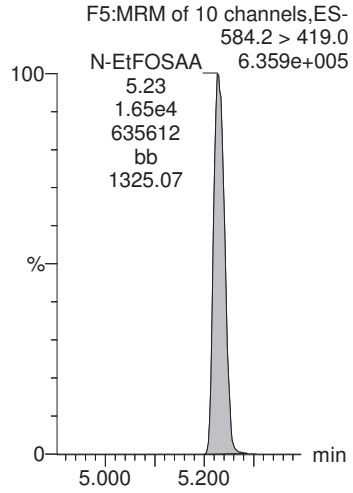
PFDA



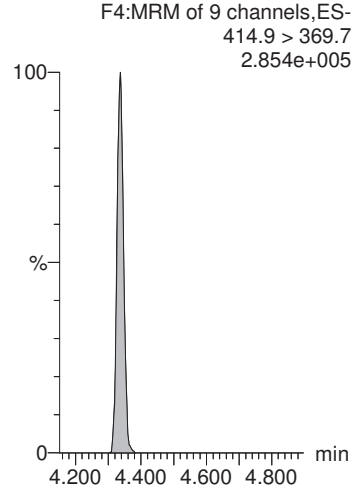
N-MeFOSAA



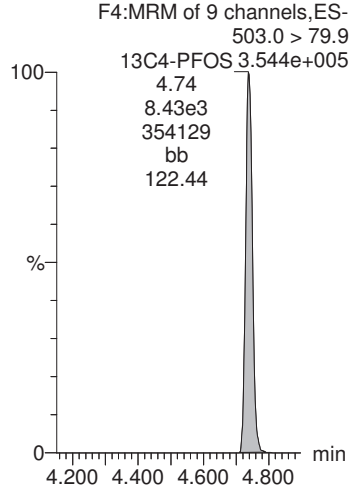
N-EtFOSAA



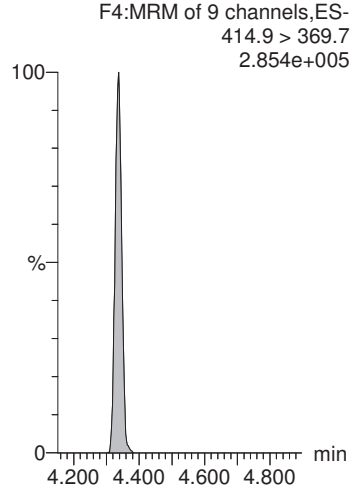
13C2-PFOA



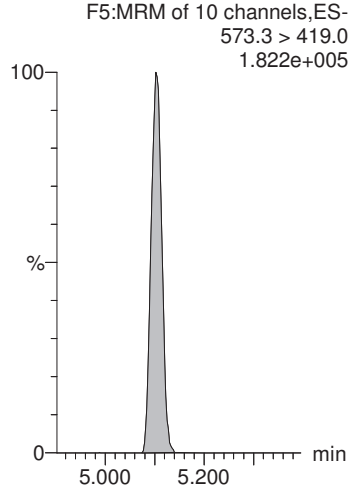
13C4-PFOS



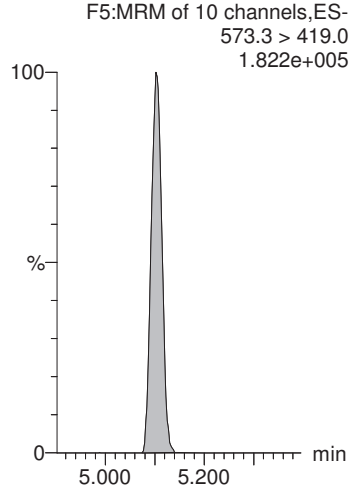
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



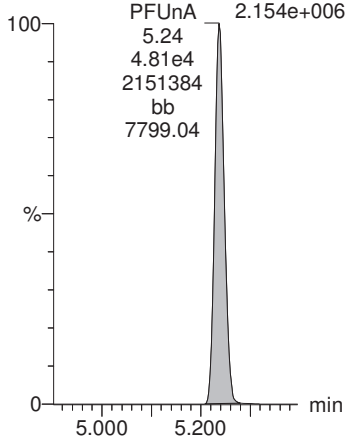
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

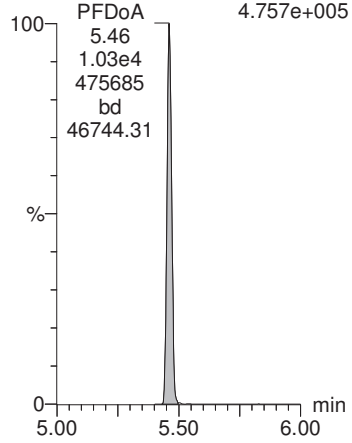
Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

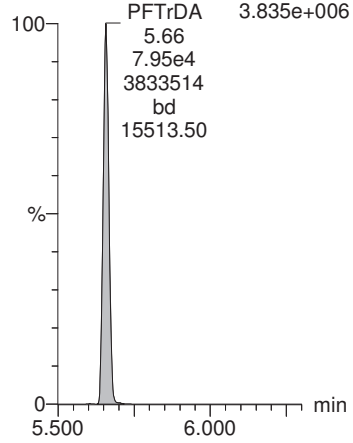
PFUnA



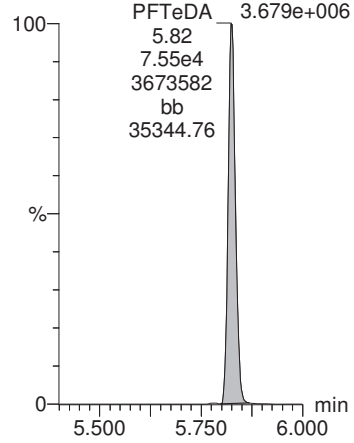
PFDoA



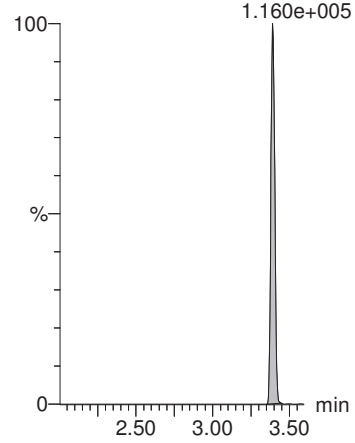
PFTrDA



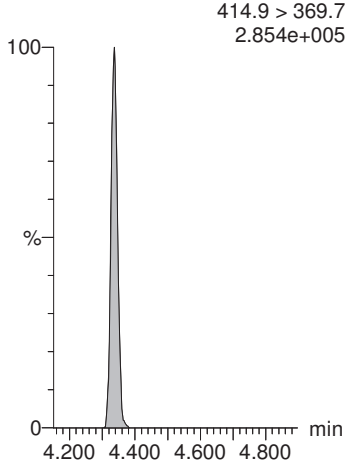
PFTeDA



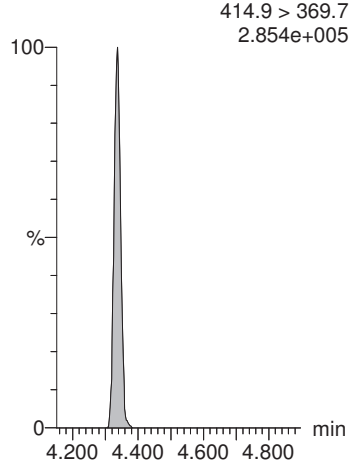
13C2-PFHxA



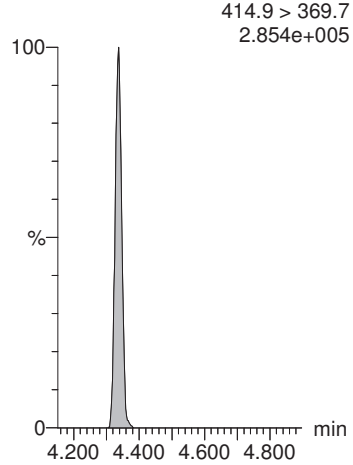
13C2-PFOA



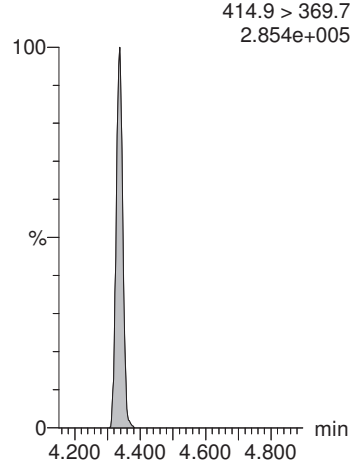
13C2-PFOA



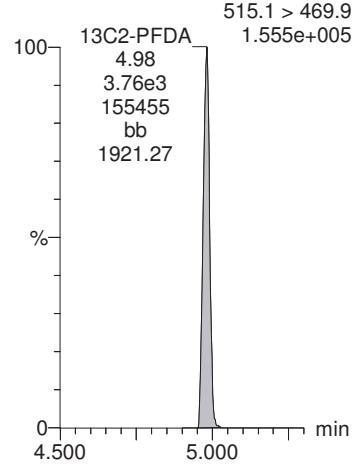
13C2-PFOA



13C2-PFOA



13C2-PFDA



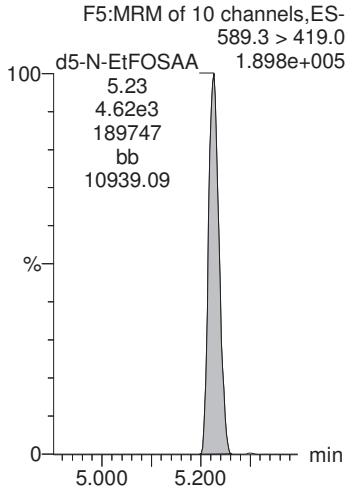
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-CRV_totals.qld

Last Altered: Friday, January 26, 2018 10:31:45 Pacific Standard Time
Printed: Friday, January 26, 2018 10:34:07 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-12_TOTALS.qld

Last Altered: Friday, January 26, 2018 10:40:23 Pacific Standard Time
Printed: Friday, January 26, 2018 10:40:58 Pacific Standard Time

Rev'd: AMH 01/26/2018

Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	2.90e3	9.55e3	1.0000		3.03	3.03	8.70	10.530	105.3
2	2	PFHxA	313.2 > 268.9	2.01e3	7.49e3	1.0000		3.39	3.39	2.68	10.748	107.5
3	3	PFHpA	363 > 318.9	6.58e3	7.49e3	1.0000		3.91	3.92	8.78	10.002	100.0
4	4	PFHxS	398.9 > 79.6	3.31e3	9.55e3	1.0000		4.02	4.04	9.96	10.765	107.7
5	5	PFOA	413 > 368.7	6.47e3	7.49e3	1.0000		4.34	4.34	8.64	11.054	110.5
6	6	PFNA	463 > 418.8	6.75e3	7.49e3	1.0000		4.69	4.68	9.00	11.015	110.2
7	7	PFOS	499 >79.9	4.15e3	9.55e3	1.0000		4.74	4.74	12.5	10.995	110.0
8	8	PFDA	513 > 468.8	5.15e3	7.49e3	1.0000		5.01	4.98	6.87	9.146	91.5
9	9	N-MeFOSAA	570.1 > 419.0	2.65e3	4.81e3	1.0000		5.04	5.10	22.1	10.636	106.4
10	10	N-EtFOSAA	584.2 >419.0	2.10e3	4.81e3	1.0000		5.22	5.23	17.5	12.113	121.1
11	11	PFDoA	612.9 > 318.8	1.23e3	7.49e3	1.0000		5.38	5.46	1.64	10.751	107.5
12	12	PFUnA	563 > 518.9	6.40e3	7.49e3	1.0000		5.18	5.24	8.54	11.177	111.8
13	13	PFTrDA	662.9 > 618.9	9.46e3	7.49e3	1.0000		5.70	5.66	12.6	10.618	106.2
14	14	PFTeDA	712.9 > 668.8	8.31e3	7.49e3	1.0000		5.87	5.83	11.1	9.784	97.8
15	15	13C2-PFHxA	315 > 269.8	3.88e3	7.49e3	1.0000	0.517	3.48	3.39	5.18	10.007	100.1
16	16	13C2-PFDA	515.1 > 469.9	4.26e3	7.49e3	1.0000	0.543	4.95	4.98	5.69	10.485	104.8
17	17	d5-N-EtFOSAA	589.3 > 419.0	4.82e3	4.81e3	1.0000	1.081	5.10	5.23	40.1	37.083	92.7
18	18	13C2-PFOA	414.9 > 369.7	7.49e3	7.49e3	1.0000	1.000	4.31	4.34	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	9.55e3	9.55e3	1.0000	1.000	4.81	4.74	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	4.81e3	4.81e3	1.0000	1.000	5.16	5.10	40.0	40.000	100.0

GM 1/26/2018

Vista Analytical Laboratory

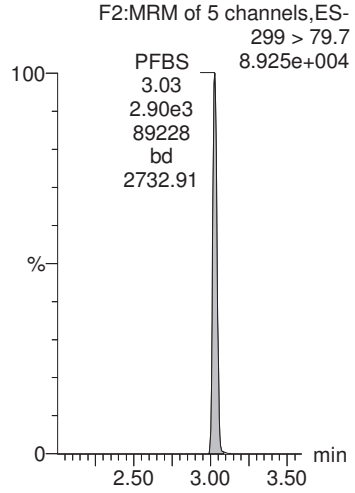
Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-12_TOTALS.qld

Last Altered: Friday, January 26, 2018 10:40:23 Pacific Standard Time
Printed: Friday, January 26, 2018 10:40:58 Pacific Standard Time

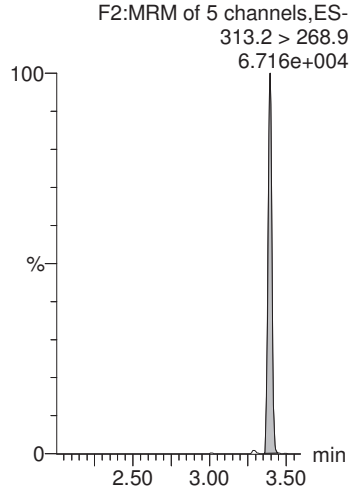
Method: U:\Q1.pro\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14_totals.cdb 26 Jan 2018 10:31:45

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

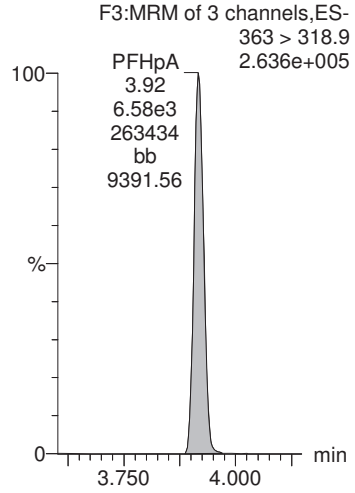
PFBS



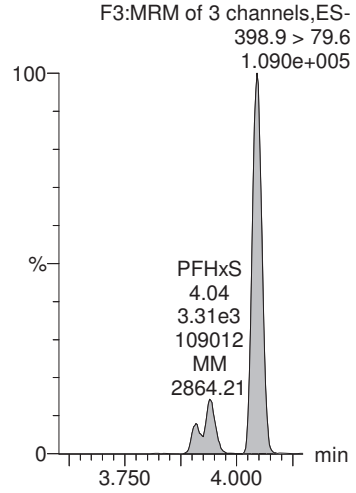
PFHxA



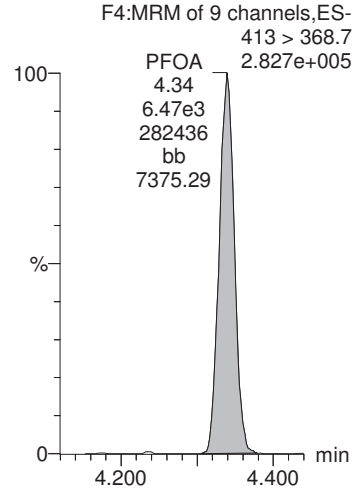
PFHpA



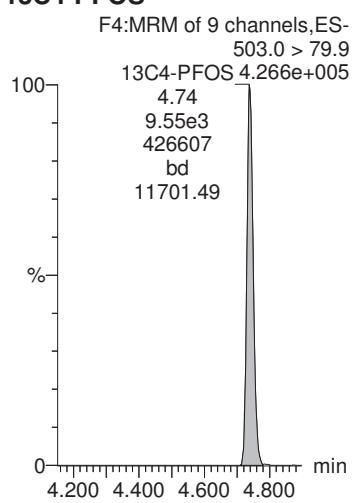
PFHxS



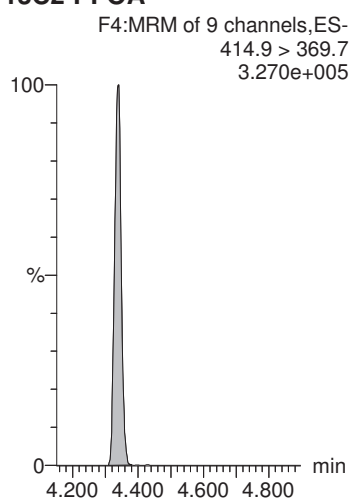
PFOA



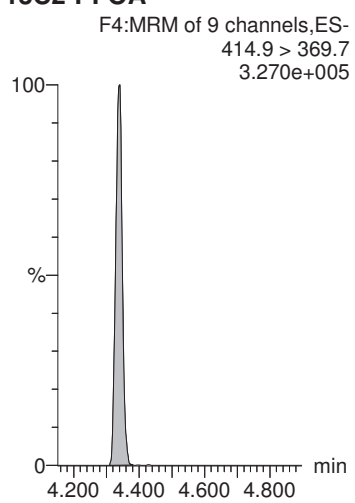
13C4-PFOS



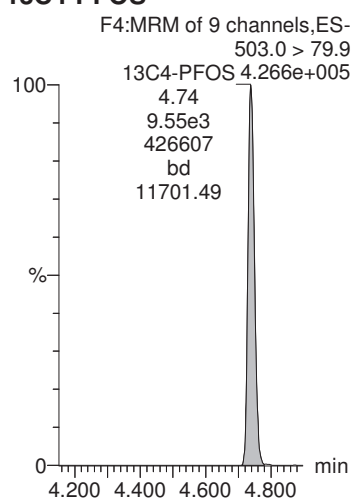
13C2-PFOA



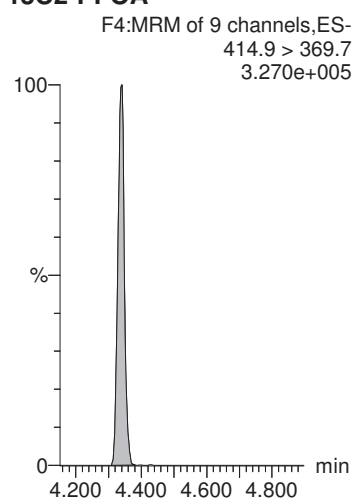
13C2-PFOA



13C4-PFOS



13C2-PFOA



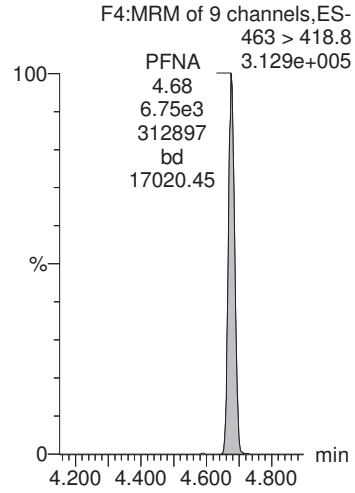
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-12_TOTALS.qld

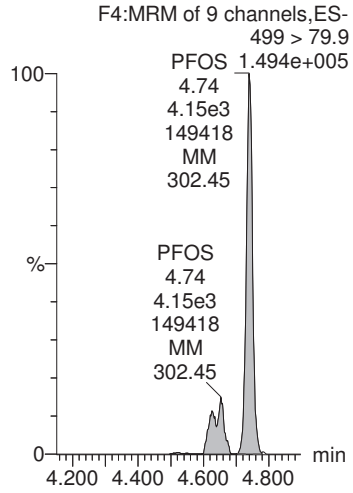
Last Altered: Friday, January 26, 2018 10:40:23 Pacific Standard Time
Printed: Friday, January 26, 2018 10:40:58 Pacific Standard Time

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

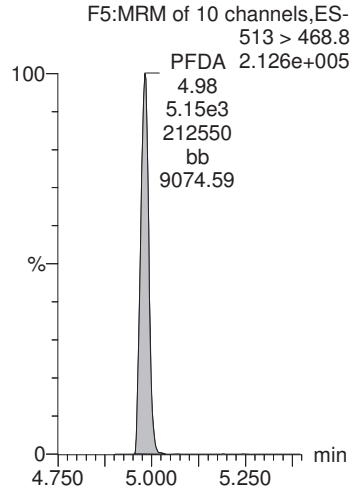
PFNA



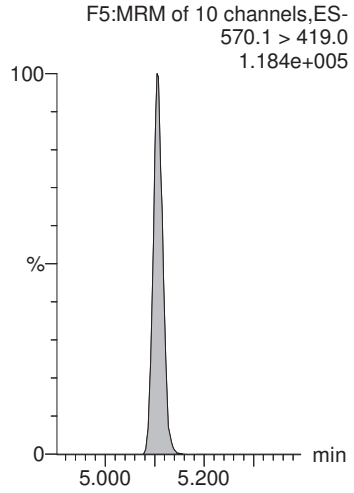
PFOS



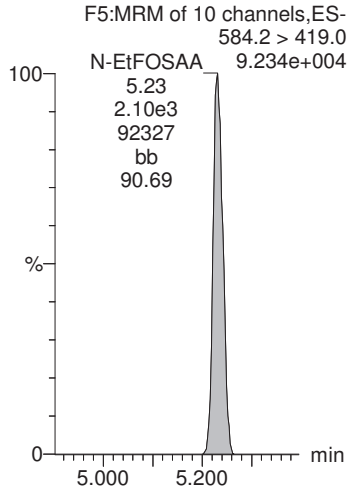
PFDA



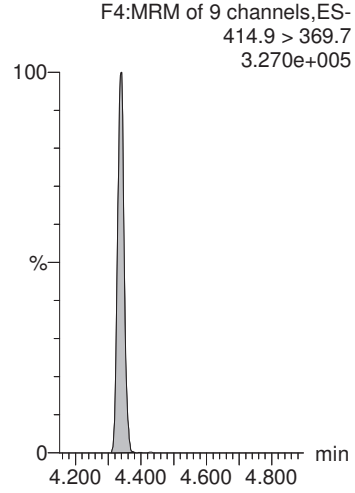
N-MeFOSAA



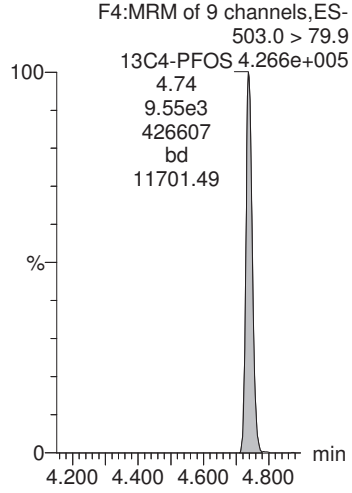
N-EtFOSAA



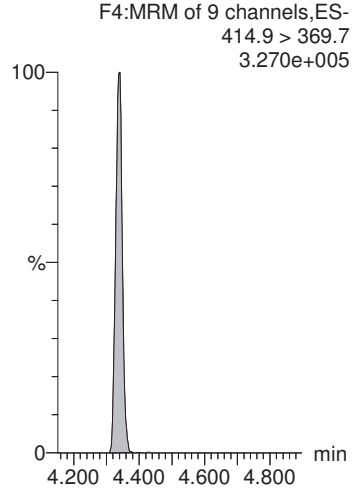
13C2-PFOA



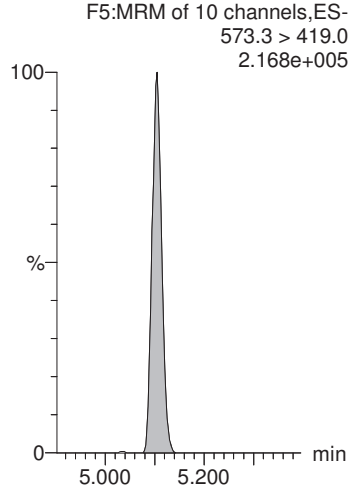
13C4-PFOS



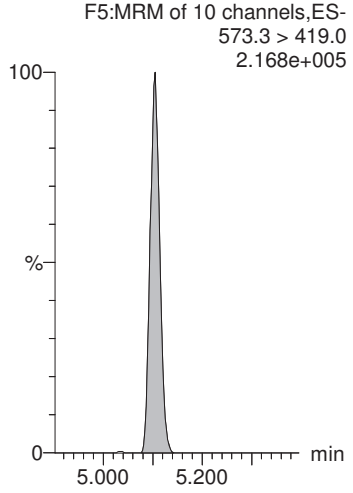
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



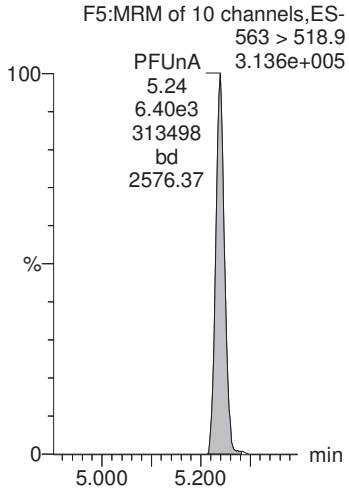
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-12_TOTALS.qld

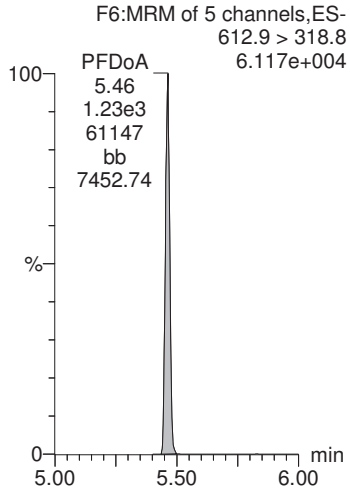
Last Altered: Friday, January 26, 2018 10:40:23 Pacific Standard Time
Printed: Friday, January 26, 2018 10:40:58 Pacific Standard Time

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

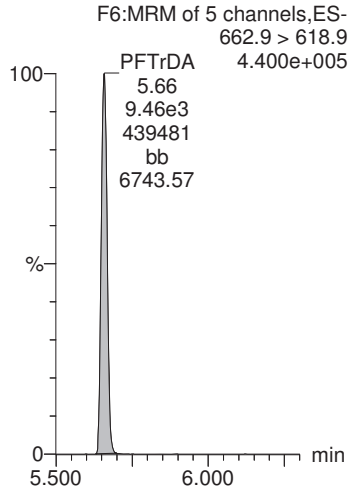
PFUnA



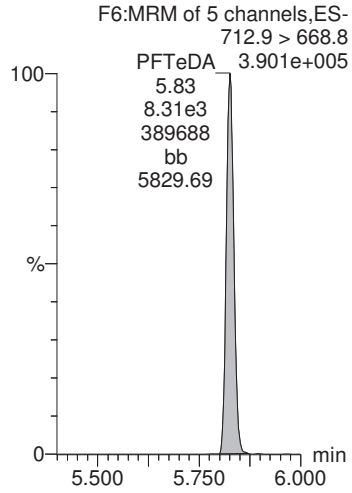
PFDoA



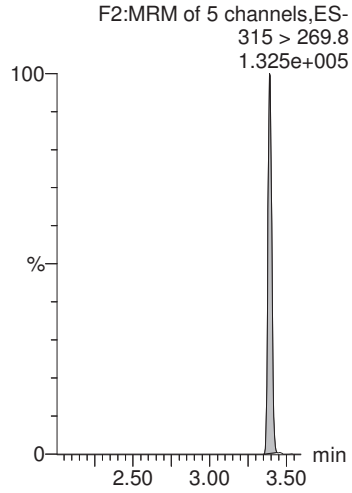
PFTrDA



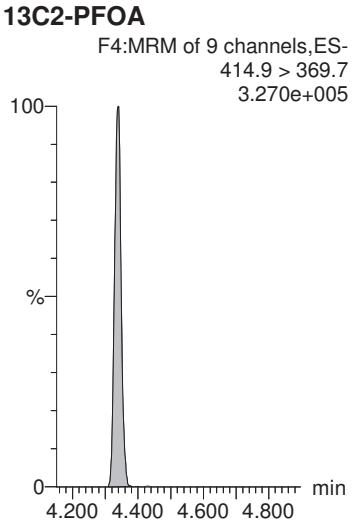
PFTeDA



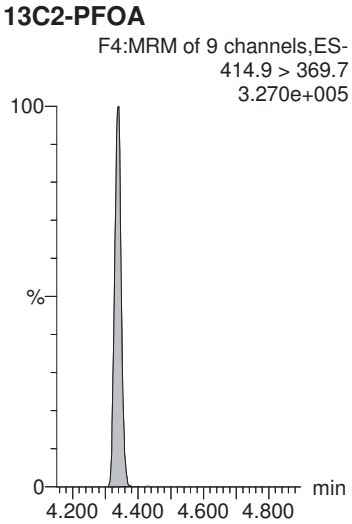
13C2-PFHxA



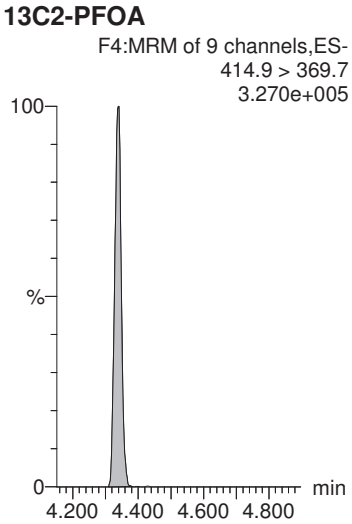
13C2-PFOA



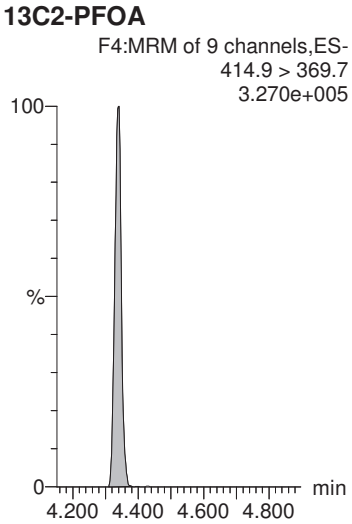
13C2-PFOA



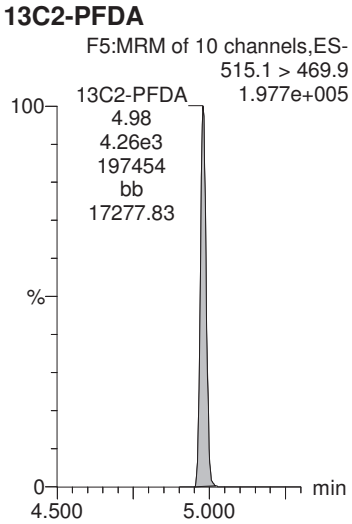
13C2-PFOA



13C2-PFOA



13C2-PFDA



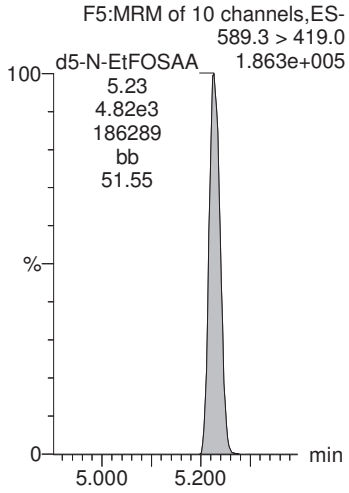
GM 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180114G2\180114G2-12_TOTALS.qld

Last Altered: Friday, January 26, 2018 10:40:23 Pacific Standard Time
Printed: Friday, January 26, 2018 10:40:58 Pacific Standard Time

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

d5-N-EtFOSAA



GM 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Rev'd: AMH 01/26/2018

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999572
Calibration curve: 0.847748 * 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	180125G3_2	Standard	0.443	3.00	196.481	13104.058	0.430	0.5	14.7	NO	1.000	NO	bb
2	2	180125G3_3	Standard	0.885	3.00	358.729	13158.697	0.782	0.9	4.3	NO	1.000	NO	bb
3	3	180125G3_4	Standard	1.770	2.99	638.734	12860.682	1.425	1.7	-5.0	NO	1.000	NO	bb
4	4	180125G3_5	Standard	4.420	2.99	1623.235	12704.991	3.667	4.3	-2.1	NO	1.000	NO	bb
5	5	180125G3_6	Standard	8.850	3.00	3180.740	12645.152	7.219	8.5	-3.8	NO	1.000	NO	bb
6	6	180125G3_7	Standard	22.100	2.99	8404.714	12447.909	19.378	22.9	3.4	NO	1.000	NO	bb
7	7	180125G3_8	Standard	44.200	3.00	15756.054	12110.164	37.340	44.0	-0.3	NO	1.000	NO	bb
8	8	180125G3_9	Standard	66.300	3.00	22808.443	11680.061	56.044	66.1	-0.3	NO	1.000	NO	bb
9	9	180125G3_10	Standard	88.400	2.99	30373.699	10757.952	81.031	95.6	8.1	NO	1.000	NO	bbX

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.997658
Calibration curve: 0.280929 * 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	180125G3_2	Standard	0.500	3.38	177.605	9920.932	0.179	0.6	27.4	NO	0.998	NO	MMX
2	2	180125G3_3	Standard	1.000	3.37	382.089	9755.360	0.392	1.4	39.4	NO	0.998	NO	MM
3	3	180125G3_4	Standard	2.000	3.38	605.976	9913.138	0.611	2.2	8.8	NO	0.998	NO	bb
4	4	180125G3_5	Standard	5.000	3.38	1461.825	9860.581	1.482	5.3	5.5	NO	0.998	NO	bb
5	5	180125G3_6	Standard	10.000	3.38	2792.479	9817.898	2.844	10.1	1.2	NO	0.998	NO	bb
6	6	180125G3_7	Standard	25.000	3.38	6389.885	9795.015	6.524	23.2	-7.1	NO	0.998	NO	bb
7	7	180125G3_8	Standard	50.000	3.38	13104.384	9201.945	14.241	50.7	1.4	NO	0.998	NO	bb
8	8	180125G3_9	Standard	75.000	3.38	18748.875	8884.957	21.102	75.1	0.2	NO	0.998	NO	bb
9	9	180125G3_10	Standard	100.000	3.38	24595.438	8054.415	30.537	108.7	8.7	NO	0.998	NO	bbX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998990
Calibration curve: 0.814762 * 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	180125G3_2	Standard	0.500	3.90	412.316	9920.932	0.416	0.5	2.0	NO	0.999	NO	bb
2	2	180125G3_3	Standard	1.000	3.89	811.286	9755.360	0.832	1.0	2.1	NO	0.999	NO	bb
3	3	180125G3_4	Standard	2.000	3.90	1585.838	9913.138	1.600	2.0	-1.8	NO	0.999	NO	bb
4	4	180125G3_5	Standard	5.000	3.90	3847.259	9860.581	3.902	4.8	-4.2	NO	0.999	NO	bb
5	5	180125G3_6	Standard	10.000	3.90	7845.092	9817.898	7.991	9.8	-1.9	NO	0.999	NO	bb
6	6	180125G3_7	Standard	25.000	3.90	18659.418	9795.015	19.050	23.4	-6.5	NO	0.999	NO	bb
7	7	180125G3_8	Standard	50.000	3.90	38288.328	9201.945	41.609	51.1	2.1	NO	0.999	NO	bb
8	8	180125G3_9	Standard	75.000	3.90	54988.449	8884.957	61.889	76.0	1.3	NO	0.999	NO	bb
9	9	180125G3_10	Standard	100.000	3.90	72408.531	8054.415	89.899	110.3	10.3	NO	0.999	NO	bbX

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999492
Calibration curve: 0.881042 * 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	180125G3_2	Standard	0.455	4.01	161.576	13104.058	0.354	0.4	-11.7	NO	0.999	NO	MM
2	2	180125G3_3	Standard	0.910	4.02	373.577	13158.697	0.815	0.9	1.6	NO	0.999	NO	MM
3	3	180125G3_4	Standard	1.820	4.02	715.683	12860.682	1.597	1.8	-0.4	NO	0.999	NO	MM
4	4	180125G3_5	Standard	4.560	4.02	1793.331	12704.991	4.051	4.6	0.8	NO	0.999	NO	MM
5	5	180125G3_6	Standard	9.120	4.02	3418.438	12645.152	7.759	8.8	-3.4	NO	0.999	NO	MM
6	6	180125G3_7	Standard	22.800	4.02	8484.664	12447.909	19.562	22.2	-2.6	NO	0.999	NO	MM
7	7	180125G3_8	Standard	45.600	4.02	17425.740	12110.164	41.297	46.9	2.8	NO	0.999	NO	MM
8	8	180125G3_9	Standard	68.400	4.02	24397.914	11680.061	59.950	68.0	-0.5	NO	0.999	NO	MM
9	9	180125G3_10	Standard	91.200	4.02	31986.197	10757.952	85.333	96.9	6.2	NO	0.999	NO	MMX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: PFOA
Coefficient of Determination: R^2 = 0.999280
Calibration curve: 0.819597 * 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	180125G3_2	Standard	0.500	4.32	341.586	9920.932	0.344	0.4	-16.0	NO	0.999	NO	bb
2	2	180125G3_3	Standard	1.000	4.31	756.038	9755.360	0.775	0.9	-5.4	NO	0.999	NO	bb
3	3	180125G3_4	Standard	2.000	4.32	1812.399	9913.138	1.828	2.2	11.5	NO	0.999	NO	bb
4	4	180125G3_5	Standard	5.000	4.31	4356.992	9860.581	4.419	5.4	7.8	NO	0.999	NO	bb
5	5	180125G3_6	Standard	10.000	4.32	7966.832	9817.898	8.115	9.9	-1.0	NO	0.999	NO	bd
6	6	180125G3_7	Standard	25.000	4.32	19380.279	9795.015	19.786	24.1	-3.4	NO	0.999	NO	bb
7	7	180125G3_8	Standard	50.000	4.32	38127.457	9201.945	41.434	50.6	1.1	NO	0.999	NO	bd
8	8	180125G3_9	Standard	75.000	4.32	54554.773	8884.957	61.401	74.9	-0.1	NO	0.999	NO	bb
9	9	180125G3_10	Standard	100.000	4.32	74589.758	8054.415	92.607	113.0	13.0	NO	0.999	NO	bbX

Compound name: PFNA
Coefficient of Determination: R^2 = 0.996962
Calibration curve: 0.929594 * 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	180125G3_2	Standard	0.500	4.66	363.728	9920.932	0.367	0.4	-21.1	NO	0.997	NO	bb
2	2	180125G3_3	Standard	1.000	4.66	997.742	9755.360	1.023	1.1	10.0	NO	0.997	NO	bb
3	3	180125G3_4	Standard	2.000	4.66	1704.173	9913.138	1.719	1.8	-7.5	NO	0.997	NO	bb
4	4	180125G3_5	Standard	5.000	4.66	4794.169	9860.581	4.862	5.2	4.6	NO	0.997	NO	bb
5	5	180125G3_6	Standard	10.000	4.66	10025.425	9817.898	10.211	11.0	9.8	NO	0.997	NO	bb
6	6	180125G3_7	Standard	25.000	4.66	20516.756	9795.015	20.946	22.5	-9.9	NO	0.997	NO	bd
7	7	180125G3_8	Standard	50.000	4.66	42162.969	9201.945	45.820	49.3	-1.4	NO	0.997	NO	bb
8	8	180125G3_9	Standard	75.000	4.66	63695.441	8884.957	71.689	77.1	2.8	NO	0.997	NO	bd
9	9	180125G3_10	Standard	100.000	4.66	81025.070	8054.415	100.597	108.2	8.2	NO	0.997	NO	bbX

MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: PFOS
Coefficient of Determination: R^2 = 0.998570
Calibration curve: 1.09219 * 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	180125G3_2	Standard	0.464	4.72	204.958	13104.058	0.449	0.4	-11.4	NO	0.999	NO	MM
2	2	180125G3_3	Standard	0.925	4.72	380.131	13158.697	0.829	0.8	-17.9	NO	0.999	NO	MM
3	3	180125G3_4	Standard	1.850	4.71	796.152	12860.682	1.777	1.6	-12.1	NO	0.999	NO	MM
4	4	180125G3_5	Standard	4.625	4.72	2137.821	12704.991	4.829	4.4	-4.4	NO	0.999	NO	MM
5	5	180125G3_6	Standard	9.250	4.72	4460.092	12645.152	10.123	9.3	0.2	NO	0.999	NO	MM
6	6	180125G3_7	Standard	23.100	4.71	10259.751	12447.909	23.655	21.7	-6.2	NO	0.999	NO	MM
7	7	180125G3_8	Standard	46.200	4.72	21840.533	12110.164	51.760	47.4	2.6	NO	0.999	NO	MM
8	8	180125G3_9	Standard	69.300	4.71	31193.488	11680.061	76.648	70.2	1.3	NO	0.999	NO	MM
9	9	180125G3_10	Standard	92.400	4.72	39972.516	10757.952	106.638	97.6	5.7	NO	0.999	NO	MMX

Compound name: PFDA
Coefficient of Determination: R^2 = 0.998541
Calibration curve: 0.896382 * 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	180125G3_2	Standard	0.500	4.95	542.509	9920.932	0.547	0.6	22.0	NO	0.999	NO	bb
2	2	180125G3_3	Standard	1.000	4.95	1057.149	9755.360	1.084	1.2	20.9	NO	0.999	NO	bd
3	3	180125G3_4	Standard	2.000	4.95	1938.228	9913.138	1.955	2.2	9.1	NO	0.999	NO	bb
4	4	180125G3_5	Standard	5.000	4.95	4129.319	9860.581	4.188	4.7	-6.6	NO	0.999	NO	bb
5	5	180125G3_6	Standard	10.000	4.95	8646.341	9817.898	8.807	9.8	-1.8	NO	0.999	NO	bb
6	6	180125G3_7	Standard	25.000	4.95	20649.291	9795.015	21.081	23.5	-5.9	NO	0.999	NO	bb
7	7	180125G3_8	Standard	50.000	4.95	41406.797	9201.945	44.998	50.2	0.4	NO	0.999	NO	bb
8	8	180125G3_9	Standard	75.000	4.95	60756.141	8884.957	68.381	76.3	1.7	NO	0.999	NO	bb
9	9	180125G3_10	Standard	100.000	4.95	74284.680	8054.415	92.229	102.9	2.9	NO	0.999	NO	bbX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.997234
Calibration curve: -0.000697322 * x^2 + 2.14772 * 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	180125G3_2	Standard	0.500	5.08	128.113	7627.308	0.672	0.3	-37.4	NO	0.997	NO	bbX
2	2	180125G3_3	Standard	1.000	5.07	301.307	8496.017	1.419	0.7	-33.9	NO	0.997	NO	bb
3	3	180125G3_4	Standard	2.000	5.07	754.465	8142.585	3.706	1.7	-13.7	NO	0.997	NO	bb
4	4	180125G3_5	Standard	5.000	5.08	1964.388	8184.376	9.601	4.5	-10.5	NO	0.997	NO	bd
5	5	180125G3_6	Standard	10.000	5.07	4228.493	8142.835	20.772	9.7	-3.0	NO	0.997	NO	bb
6	6	180125G3_7	Standard	25.000	5.07	10341.005	7501.442	55.141	25.9	3.6	NO	0.997	NO	bd
7	7	180125G3_8	Standard	50.000	5.08	21017.191	7605.789	110.533	52.4	4.7	NO	0.997	NO	bd
8	8	180125G3_9	Standard	75.000	5.08	30079.916	7840.823	153.453	73.2	-2.4	NO	0.997	NO	bb
9	9	180125G3_10	Standard	100.000	5.00	8.461	6877.840	0.049	0.0	-100.0	NO	0.997	NO	bbX

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.995268
Calibration curve: 1.45186 * 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	180125G3_2	Standard	0.500	5.19	109.273	7627.308	0.573	0.4	-21.1	NO	0.995	NO	bbX
2	2	180125G3_3	Standard	1.000	5.20	182.864	8496.017	0.861	0.6	-40.7	NO	0.995	NO	bb
3	3	180125G3_4	Standard	2.000	5.20	595.087	8142.585	2.923	2.0	0.7	NO	0.995	NO	bb
4	4	180125G3_5	Standard	5.000	5.20	1486.768	8184.376	7.266	5.0	0.1	NO	0.995	NO	bb
5	5	180125G3_6	Standard	10.000	5.20	3096.573	8142.835	15.211	10.5	4.8	NO	0.995	NO	bb
6	6	180125G3_7	Standard	25.000	5.20	6815.974	7501.442	36.345	25.0	0.1	NO	0.995	NO	bb
7	7	180125G3_8	Standard	50.000	5.20	14855.687	7605.789	78.128	53.8	7.6	NO	0.995	NO	bb
8	8	180125G3_9	Standard	75.000	5.20	20224.891	7840.823	103.177	71.1	-5.2	NO	0.995	NO	bb
9	9	180125G3_10	Standard	100.000	5.20	27247.139	6877.840	158.463	109.1	9.1	NO	0.995	NO	bdX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998353
Calibration curve: 0.159857 * 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	180125G3_2	Standard	0.500	5.42	45.558	9920.932	0.046	0.3	-42.5	NO	0.998	NO	bb
2	2	180125G3_3	Standard	1.000	5.41	187.392	9755.360	0.192	1.2	20.2	NO	0.998	NO	bb
3	3	180125G3_4	Standard	2.000	5.42	305.858	9913.138	0.309	1.9	-3.5	NO	0.998	NO	bb
4	4	180125G3_5	Standard	5.000	5.42	719.711	9860.581	0.730	4.6	-8.7	NO	0.998	NO	bb
5	5	180125G3_6	Standard	10.000	5.42	1481.995	9817.898	1.509	9.4	-5.6	NO	0.998	NO	bd
6	6	180125G3_7	Standard	25.000	5.42	3801.698	9795.015	3.881	24.3	-2.9	NO	0.998	NO	bb
7	7	180125G3_8	Standard	50.000	5.42	7406.345	9201.945	8.049	50.3	0.7	NO	0.998	NO	bb
8	8	180125G3_9	Standard	75.000	5.42	10857.391	8884.957	12.220	76.4	1.9	NO	0.998	NO	bb
9	9	180125G3_10	Standard	100.000	5.42	13445.908	8054.415	16.694	104.4	4.4	NO	0.998	NO	bdX

Compound name: PFUnA
Coefficient of Determination: R^2 = 0.999263
Calibration curve: 0.874668 * 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	180125G3_2	Standard	0.500	5.20	453.851	9920.932	0.457	0.5	4.6	NO	0.999	NO	bb
2	2	180125G3_3	Standard	1.000	5.20	842.908	9755.360	0.864	1.0	-1.2	NO	0.999	NO	bb
3	3	180125G3_4	Standard	2.000	5.20	1641.299	9913.138	1.656	1.9	-5.4	NO	0.999	NO	bb
4	4	180125G3_5	Standard	5.000	5.20	4201.328	9860.581	4.261	4.9	-2.6	NO	0.999	NO	bb
5	5	180125G3_6	Standard	10.000	5.20	8743.562	9817.898	8.906	10.2	1.8	NO	0.999	NO	bb
6	6	180125G3_7	Standard	25.000	5.20	21221.252	9795.015	21.665	24.8	-0.9	NO	0.999	NO	bd
7	7	180125G3_8	Standard	50.000	5.20	41695.891	9201.945	45.312	51.8	3.6	NO	0.999	NO	bb
8	8	180125G3_9	Standard	75.000	5.20	57095.109	8884.957	64.260	73.5	-2.0	NO	0.999	NO	bb
9	9	180125G3_10	Standard	100.000	5.20	72643.977	8054.415	90.191	103.1	3.1	NO	0.999	NO	bdX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998437
Calibration curve: 1.30234 * 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	180125G3_2	Standard	0.500	5.61	667.725	9920.932	0.673	0.5	3.4	NO	0.998	NO	bb
2	2	180125G3_3	Standard	1.000	5.61	1311.766	9755.360	1.345	1.0	3.3	NO	0.998	NO	bd
3	3	180125G3_4	Standard	2.000	5.61	2669.005	9913.138	2.692	2.1	3.4	NO	0.998	NO	bb
4	4	180125G3_5	Standard	5.000	5.60	6216.061	9860.581	6.304	4.8	-3.2	NO	0.998	NO	bb
5	5	180125G3_6	Standard	10.000	5.61	12633.274	9817.898	12.868	9.9	-1.2	NO	0.998	NO	bb
6	6	180125G3_7	Standard	25.000	5.61	29627.771	9795.015	30.248	23.2	-7.1	NO	0.998	NO	bb
7	7	180125G3_8	Standard	50.000	5.61	59091.805	9201.945	64.217	49.3	-1.4	NO	0.998	NO	bb
8	8	180125G3_9	Standard	75.000	5.61	89824.570	8884.957	101.097	77.6	3.5	NO	0.998	NO	bb
9	9	180125G3_10	Standard	100.000	5.61	111784.070	8054.415	138.786	106.6	6.6	NO	0.998	NO	bbX

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999723
Calibration curve: 1.25001 * 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	180125G3_2	Standard	0.500	5.78	613.070	9920.932	0.618	0.5	-1.1	NO	1.000	NO	bb
2	2	180125G3_3	Standard	1.000	5.78	1259.675	9755.360	1.291	1.0	3.3	NO	1.000	NO	bb
3	3	180125G3_4	Standard	2.000	5.78	2465.514	9913.138	2.487	2.0	-0.5	NO	1.000	NO	bb
4	4	180125G3_5	Standard	5.000	5.78	6151.753	9860.581	6.239	5.0	-0.2	NO	1.000	NO	bb
5	5	180125G3_6	Standard	10.000	5.78	12152.792	9817.898	12.378	9.9	-1.0	NO	1.000	NO	bb
6	6	180125G3_7	Standard	25.000	5.77	29583.229	9795.015	30.202	24.2	-3.4	NO	1.000	NO	bb
7	7	180125G3_8	Standard	50.000	5.78	58382.965	9201.945	63.446	50.8	1.5	NO	1.000	NO	bb
8	8	180125G3_9	Standard	75.000	5.78	83487.875	8884.957	93.965	75.2	0.2	NO	1.000	NO	bb
9	9	180125G3_10	Standard	100.000	5.78	110326.664	8054.415	136.977	109.6	9.6	NO	1.000	NO	bbX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: 13C2-PFHxA
Response Factor: 0.48603
RRF SD: 0.0153679, Relative SD: 3.16193
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	180125G3_2	Standard	10.000	3.38	4814.067	9920.932	4.852	10.0	-0.2	NO		NO	bb
2	2	180125G3_3	Standard	10.000	3.37	4739.187	9755.360	4.858	10.0	-0.0	NO		NO	bb
3	3	180125G3_4	Standard	10.000	3.38	4999.042	9913.138	5.043	10.4	3.8	NO		NO	bb
4	4	180125G3_5	Standard	10.000	3.37	4582.177	9860.581	4.647	9.6	-4.4	NO		NO	bb
5	5	180125G3_6	Standard	10.000	3.38	4859.447	9817.898	4.950	10.2	1.8	NO		NO	bb
6	6	180125G3_7	Standard	10.000	3.38	4523.337	9795.015	4.618	9.5	-5.0	NO		NO	bb
7	7	180125G3_8	Standard	10.000	3.38	4541.735	9201.945	4.936	10.2	1.5	NO		NO	bb
8	8	180125G3_9	Standard	10.000	3.38	4423.726	8884.957	4.979	10.2	2.4	NO		NO	bb
9	9	180125G3_10	Standard	10.000	3.38	4651.863	8054.415	5.776	11.9	18.8	NO		NO	bbX

Compound name: 13C2-PFDA
Response Factor: 0.674759
RRF SD: 0.0331702, Relative SD: 4.91586
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	180125G3_2	Standard	10.000	4.95	6314.036	9920.932	6.364	9.4	-5.7	NO		NO	bb
2	2	180125G3_3	Standard	10.000	4.95	6799.104	9755.360	6.970	10.3	3.3	NO		NO	bb
3	3	180125G3_4	Standard	10.000	4.95	7090.817	9913.138	7.153	10.6	6.0	NO		NO	bb
4	4	180125G3_5	Standard	10.000	4.95	6853.135	9860.581	6.950	10.3	3.0	NO		NO	bb
5	5	180125G3_6	Standard	10.000	4.95	6600.300	9817.898	6.723	10.0	-0.4	NO		NO	bd
6	6	180125G3_7	Standard	10.000	4.95	6033.092	9795.015	6.159	9.1	-8.7	NO		NO	bb
7	7	180125G3_8	Standard	10.000	4.95	6344.692	9201.945	6.895	10.2	2.2	NO		NO	bb
8	8	180125G3_9	Standard	10.000	4.95	6012.222	8884.957	6.767	10.0	0.3	NO		NO	bb
9	9	180125G3_10	Standard	10.000	4.95	6345.782	8054.415	7.879	11.7	16.8	NO		NO	bdX

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: d5-N-EtFOSAA
Response Factor: 1.07554
RRF SD: 0.0546044, Relative SD: 5.07694
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	180125G3_2	Standard	40.000	5.19	8149.557	7627.308	42.739	39.7	-0.7	NO		NO	bb
2	2	180125G3_3	Standard	40.000	5.19	9418.038	8496.017	44.341	41.2	3.1	NO		NO	bb
3	3	180125G3_4	Standard	40.000	5.19	9235.787	8142.585	45.370	42.2	5.5	NO		NO	bd
4	4	180125G3_5	Standard	40.000	5.19	8553.379	8184.376	41.803	38.9	-2.8	NO		NO	bb
5	5	180125G3_6	Standard	40.000	5.19	9082.576	8142.835	44.616	41.5	3.7	NO		NO	bb
6	6	180125G3_7	Standard	40.000	5.19	8462.313	7501.442	45.124	42.0	4.9	NO		NO	bd
7	7	180125G3_8	Standard	40.000	5.19	7709.137	7605.789	40.544	37.7	-5.8	NO		NO	bb
8	8	180125G3_9	Standard	40.000	5.19	7769.223	7840.823	39.635	36.9	-7.9	NO		NO	bd
9	9	180125G3_10	Standard	40.000	5.19	7499.825	6877.840	43.617	40.6	1.4	NO		NO	bbX

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	180125G3_2	Standard	10.000	4.31	9920.932	9920.932	10.000	10.0	0.0	NO		NO	bb
2	2	180125G3_3	Standard	10.000	4.31	9755.360	9755.360	10.000	10.0	0.0	NO		NO	bb
3	3	180125G3_4	Standard	10.000	4.32	9913.138	9913.138	10.000	10.0	0.0	NO		NO	bb
4	4	180125G3_5	Standard	10.000	4.31	9860.581	9860.581	10.000	10.0	0.0	NO		NO	bb
5	5	180125G3_6	Standard	10.000	4.32	9817.898	9817.898	10.000	10.0	0.0	NO		NO	bb
6	6	180125G3_7	Standard	10.000	4.32	9795.015	9795.015	10.000	10.0	0.0	NO		NO	bb
7	7	180125G3_8	Standard	10.000	4.32	9201.945	9201.945	10.000	10.0	0.0	NO		NO	bb
8	8	180125G3_9	Standard	10.000	4.32	8884.957	8884.957	10.000	10.0	0.0	NO		NO	bd
9	9	180125G3_10	Standard	10.000	4.32	8054.415	8054.415	10.000	10.0	0.0	NO		NO	bbX

MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 1.18688e-016, Relative SD: 1.18688e-014
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	180125G3_2	Standard	28.700	4.71	13104.058	13104.058	28.700	28.7	0.0	NO		NO	bb
2	2	180125G3_3	Standard	28.700	4.71	13158.697	13158.697	28.700	28.7	0.0	NO		NO	bb
3	3	180125G3_4	Standard	28.700	4.71	12860.682	12860.682	28.700	28.7	0.0	NO		NO	bb
4	4	180125G3_5	Standard	28.700	4.71	12704.991	12704.991	28.700	28.7	0.0	NO		NO	bd
5	5	180125G3_6	Standard	28.700	4.71	12645.152	12645.152	28.700	28.7	0.0	NO		NO	bd
6	6	180125G3_7	Standard	28.700	4.71	12447.909	12447.909	28.700	28.7	0.0	NO		NO	bb
7	7	180125G3_8	Standard	28.700	4.72	12110.164	12110.164	28.700	28.7	0.0	NO		NO	bb
8	8	180125G3_9	Standard	28.700	4.71	11680.061	11680.061	28.700	28.7	0.0	NO		NO	bd
9	9	180125G3_10	Standard	28.700	4.71	10757.952	10757.952	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	180125G3_2	Standard	40.000	5.07	7627.308	7627.308	40.000	40.0	0.0	NO		NO	bb
2	2	180125G3_3	Standard	40.000	5.07	8496.017	8496.017	40.000	40.0	0.0	NO		NO	bb
3	3	180125G3_4	Standard	40.000	5.07	8142.585	8142.585	40.000	40.0	0.0	NO		NO	bb
4	4	180125G3_5	Standard	40.000	5.07	8184.376	8184.376	40.000	40.0	0.0	NO		NO	bb
5	5	180125G3_6	Standard	40.000	5.07	8142.835	8142.835	40.000	40.0	0.0	NO		NO	bb
6	6	180125G3_7	Standard	40.000	5.07	7501.442	7501.442	40.000	40.0	0.0	NO		NO	bd
7	7	180125G3_8	Standard	40.000	5.07	7605.789	7605.789	40.000	40.0	0.0	NO		NO	bb
8	8	180125G3_9	Standard	40.000	5.07	7840.823	7840.823	40.000	40.0	0.0	NO		NO	bb
9	9	180125G3_10	Standard	40.000	5.07	6877.840	6877.840	40.000	40.0	0.0	NO		NO	bdX

MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:46:33 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_2, Date: 25-Jan-2018, Time: 15:33:17, ID: ST180125G3-1 PFC CS-3 537 18A2408, Description: PFC CS-3 537 18A2408

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBS	0.9996	NO	
2	2	PFHxA	0.9977	NO	
3	3	PFHpA	0.9990	NO	
4	4	PFHxS	0.9995	NO	
5	5	PFOA	0.9993	NO	
6	6	PFNA	0.9970	NO	
7	7	PFOS	0.9986	NO	
8	8	PFDA	0.9985	NO	
9	9	N-MeFOSAA	0.9972	NO	
10	10	N-EtFOSAA	0.9953	NO	
11	11	PFDoA	0.9984	NO	
12	12	PFUnA	0.9993	NO	
13	13	PFTrDA	0.9984	NO	
14	14	PFTeDA	0.9997	NO	
15	15	13C2-PFHxA		NO	3.162
16	16	13C2-PFDA		NO	4.916
17	17	d5-N-EtFOSAA		NO	5.077
18	18	13C2-PFOA		NO	0.000
19	19	13C4-PFOS		NO	0.000
20	20	d3-N-MeFOSAA		NO	0.000
21	21	Total PFOA		NO	8.980
22	22	Total PFOS		NO	8.273
23	23	Total PFOA+PFOS		NO	7.240

MJT 1/26/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 26, 2018 09:01:29 Pacific Standard Time
Printed: Friday, January 26, 2018 09:05:29 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180125G3_1	IPA	25-Jan-18	15:21:14
2	180125G3_2	ST180125G3-1 PFC CS-3 537 18A2408	25-Jan-18	15:33:17
3	180125G3_3	ST180125G3-2 PFC CS-2 537 18A2409	25-Jan-18	15:45:40
4	180125G3_4	ST180125G3-3 PFC CS-1 537 18A2512	25-Jan-18	15:58:05
5	180125G3_5	ST180125G3-4 PFC CS0 537 18A2410	25-Jan-18	16:10:30
6	180125G3_6	ST180125G3-5 PFC CS1 537 18A2411	25-Jan-18	16:22:55
7	180125G3_7	ST180125G3-6 PFC CS2 537 18A2412	25-Jan-18	16:35:21
8	180125G3_8	ST180125G3-7 PFC CS3 537 18A2413	25-Jan-18	16:48:12
9	180125G3_9	ST180125G3-8 PFC CS4 537 18A2414	25-Jan-18	17:01:00
10	180125G3_10	ST180125G3-9 PFC CS5 537 18A2415	25-Jan-18	17:13:03
11	180125G3_11	IPA	25-Jan-18	17:25:21
12	180125G3_12	ICV180125G3-1 PFC ICV 537 18A2416	25-Jan-18	17:37:42
13	180125G3_13	IPA	25-Jan-18	17:50:03

Compound 18: 13C2-PFOA

HIGH	9920.93	RPD
LOW	8884.96	11.02

	ID	Name	Type	Std. (	RT	Area	IS Area	Response	Primary Flags
1	ST180125G3-1 PFC CS-3 537 18A2408	180125G3_2	Standard	10	4.3	9920.93	9920.93	10	bb
2	ST180125G3-2 PFC CS-2 537 18A2409	180125G3_3	Standard	10	4.3	9755.36	9755.36	10	bb
3	ST180125G3-3 PFC CS-1 537 18A2512	180125G3_4	Standard	10	4.3	9913.14	9913.14	10	bb
4	ST180125G3-4 PFC CS0 537 18A2410	180125G3_5	Standard	10	4.3	9860.58	9860.58	10	bb
5	ST180125G3-5 PFC CS1 537 18A2411	180125G3_6	Standard	10	4.3	9817.90	9817.90	10	bb
6	ST180125G3-6 PFC CS2 537 18A2412	180125G3_7	Standard	10	4.3	9795.02	9795.02	10	bb
7	ST180125G3-7 PFC CS3 537 18A2413	180125G3_8	Standard	10	4.3	9201.95	9201.95	10	bb
8	ST180125G3-8 PFC CS4 537 18A2414	180125G3_9	Standard	10	4.3	8884.96	8884.96	10	bd
9	ST180125G3-9 PFC CS5 537 18A2415	180125G3_10	Standard	10	4.3	8054.42	8054.42	10	bbX
							AVERAGE		
							9643.73		

Compound 19: 13C4-PFOS

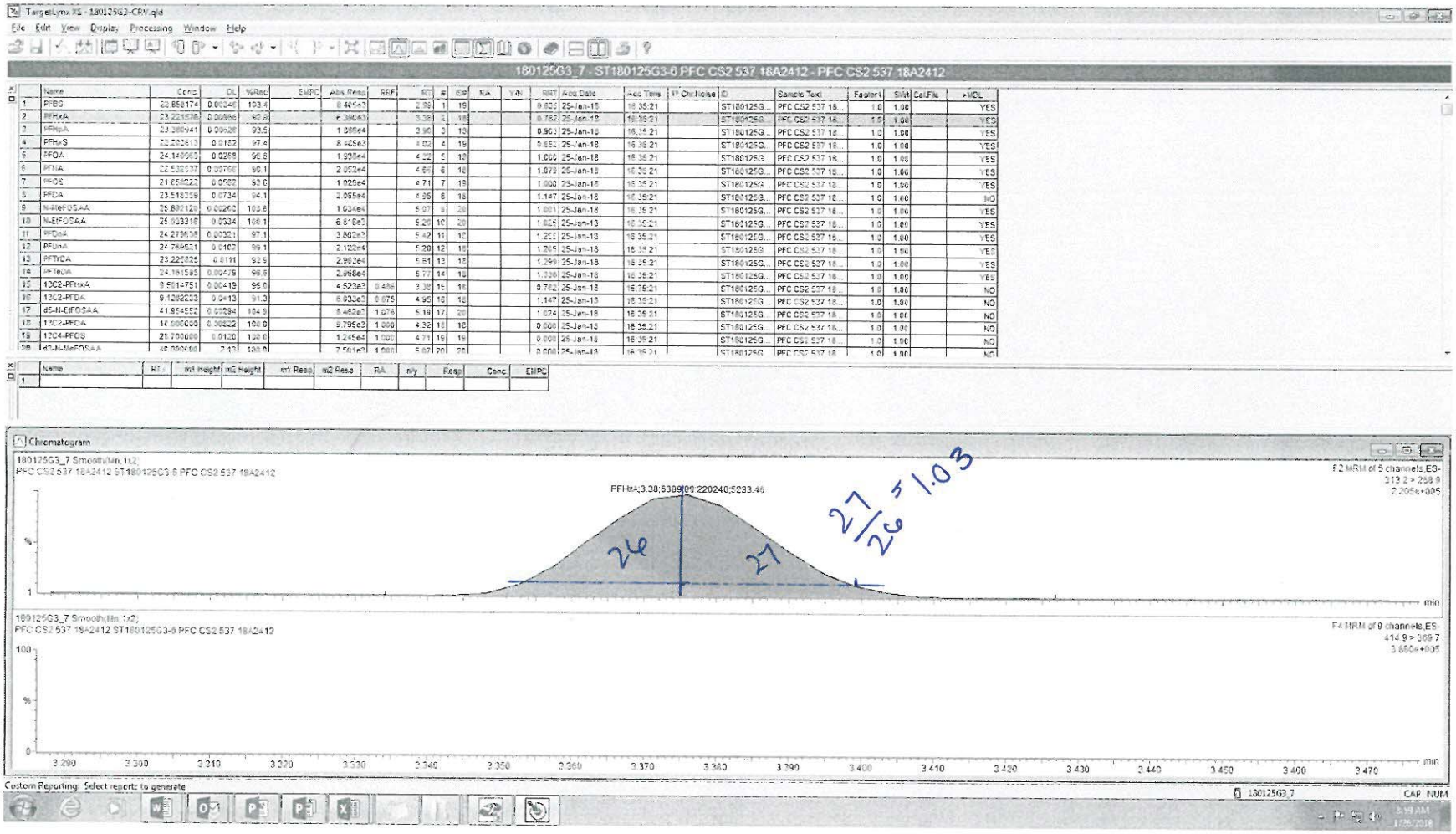
HIGH	13158.70	RPD
LOW	11680.06	11.91

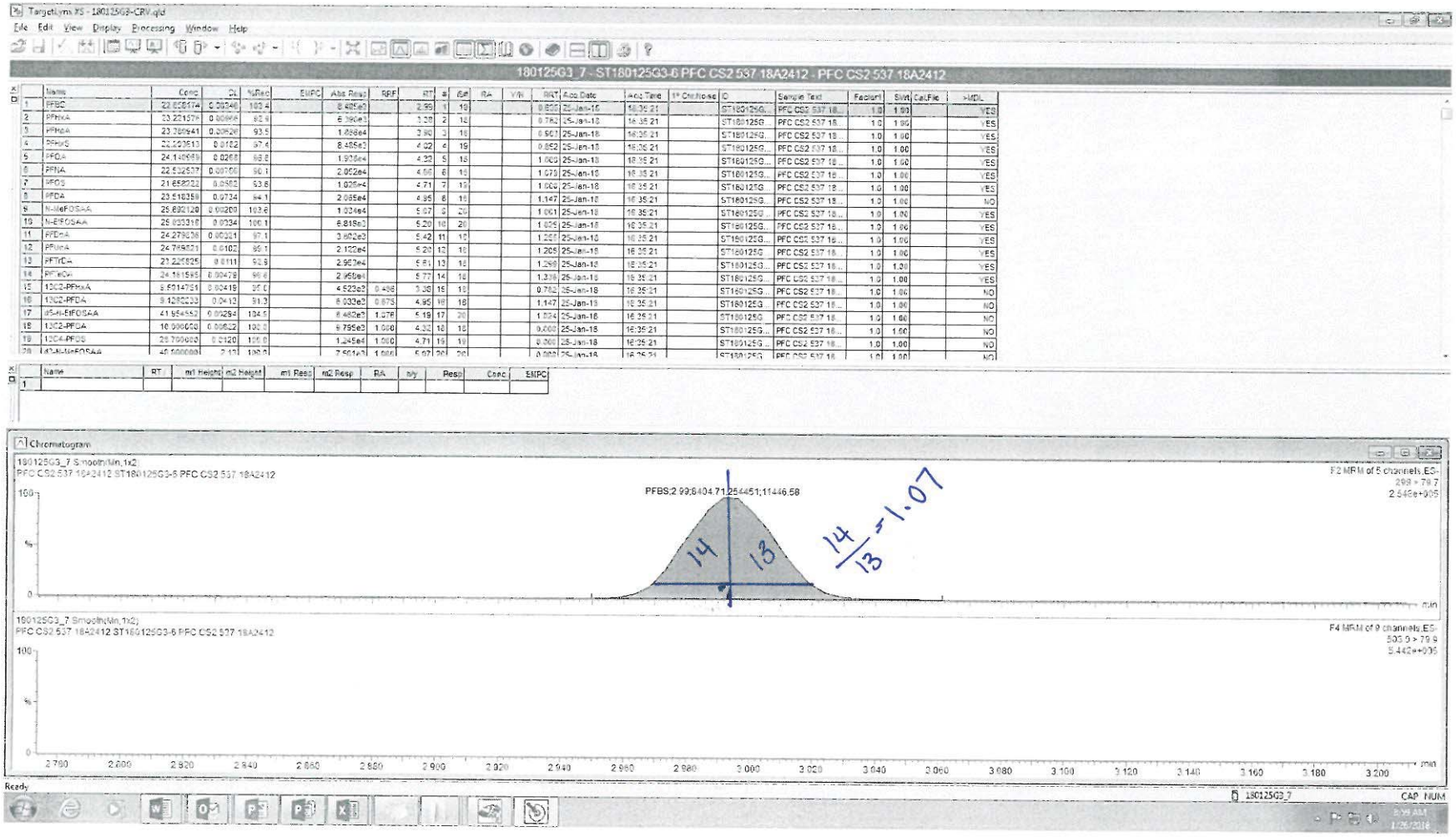
	ID	Name	Type	Std. (	RT	Area	IS Area	Response	Primary Flags
1	ST180125G3-1 PFC CS-3 537 18A2408	180125G3_2	Standard	29	4.7	13104.06	13104.06	28.7	bb
2	ST180125G3-2 PFC CS-2 537 18A2409	180125G3_3	Standard	29	4.7	13158.70	13158.70	28.7	bb
3	ST180125G3-3 PFC CS-1 537 18A2512	180125G3_4	Standard	29	4.7	12860.68	12860.68	28.7	bb
4	ST180125G3-4 PFC CS0 537 18A2410	180125G3_5	Standard	29	4.7	12704.99	12704.99	28.7	bd
5	ST180125G3-5 PFC CS1 537 18A2411	180125G3_6	Standard	29	4.7	12645.15	12645.15	28.7	bd
6	ST180125G3-6 PFC CS2 537 18A2412	180125G3_7	Standard	29	4.7	12447.91	12447.91	28.7	bb
7	ST180125G3-7 PFC CS3 537 18A2413	180125G3_8	Standard	29	4.7	12110.16	12110.16	28.7	bb
8	ST180125G3-8 PFC CS4 537 18A2414	180125G3_9	Standard	29	4.7	11680.06	11680.06	28.7	bd
9	ST180125G3-9 PFC CS5 537 18A2415	180125G3_10	Standard	29	4.7	10757.95	10757.95	28.7	bbX
							AVERAGE		
							12588.96		

Compound 20: d3-N-MeFOSAA

HIGH	8496.02	RPD
LOW	7501.44	12.43

	ID	Name	Type	Std. (	RT	Area	IS Area	Response	Primary Flags
1	ST180125G3-1 PFC CS-3 537 18A2408	180125G3_2	Standard	40	5.1	7627.31	7627.31	40	bb
2	ST180125G3-2 PFC CS-2 537 18A2409	180125G3_3	Standard	40	5.1	8496.02	8496.02	40	bb
3	ST180125G3-3 PFC CS-1 537 18A2512	180125G3_4	Standard	40	5.1	8142.59	8142.59	40	bb
4	ST180125G3-4 PFC CS0 537 18A2410	180125G3_5	Standard	40	5.1	8184.38	8184.38	40	bb
5	ST180125G3-5 PFC CS1 537 18A2411	180125G3_6	Standard	40	5.1	8142.84	8142.84	40	bb
6	ST180125G3-6 PFC CS2 537 18A2412	180125G3_7	Standard	40	5.1	7501.44	7501.44	40	bd
7	ST180125G3-7 PFC CS3 537 18A2413	180125G3_8	Standard	40	5.1	7605.79	7605.79	40	bb
8	ST180125G3-8 PFC CS4 537 18A2414	180125G3_9	Standard	40	5.1	7840.82	7840.82	40	bb
9	ST180125G3-9 PFC CS5 537 18A2415	180125G3_10	Standard	40	5.1	6877.84	6877.84	40	bdX
							AVERAGE		
							7942.65		


TargetLynx XS - 180125G3-CRV.qld
File Edit View Display Processing Window Help
180125G3_7 - ST180125G3-6 PFC CS2 537 18A2412 - PFC CS2 537 18A2412
Chromatogram
180125G3_7 Smooth(Mn,1x2)
PFC CS2 537 18A2412 ST180125G3-6 PFC CS2 537 18A2412
PFHxA,3.38,6389.80,220240,5233.46
F2 MRM of 5 channels,ES-
313.2 > 269.0
2.20E+005
26
27
27/26 = 1.03
min
180125G3_7 Smooth(Mn,1x2)
PFC CS2 537 18A2412 ST180125G3-6 PFC CS2 537 18A2412
F4 MRM of 9 channels,ES-
414.9 > 369.7
3.60E+005
Custom Reporting: Select reports to generate
180125G3_7
CAP NUM


TargetLynx XS - 180125G3-CRV.qld
File Edit View Display Processing Window Help
180125G3_7 - ST180125G3-6 PFC CS2 537 18A2412 - PFC CS2 537 18A2412
PFBS;2 99;8404.71;254451;11446.58
14
13
14/13 = 1.07
Chromatogram
180125G3_7 Smooth(Mn,1x2)
PFC CS2 537 18A2412 ST180125G3-6 PFC CS2 537 18A2412
F2 MRM of 5 channels,ES-
299 > 79.7
2.548e+005
F4 MRM of 9 channels,ES-
503.9 > 79.9
5.442e+005
Ready
CAP NUM

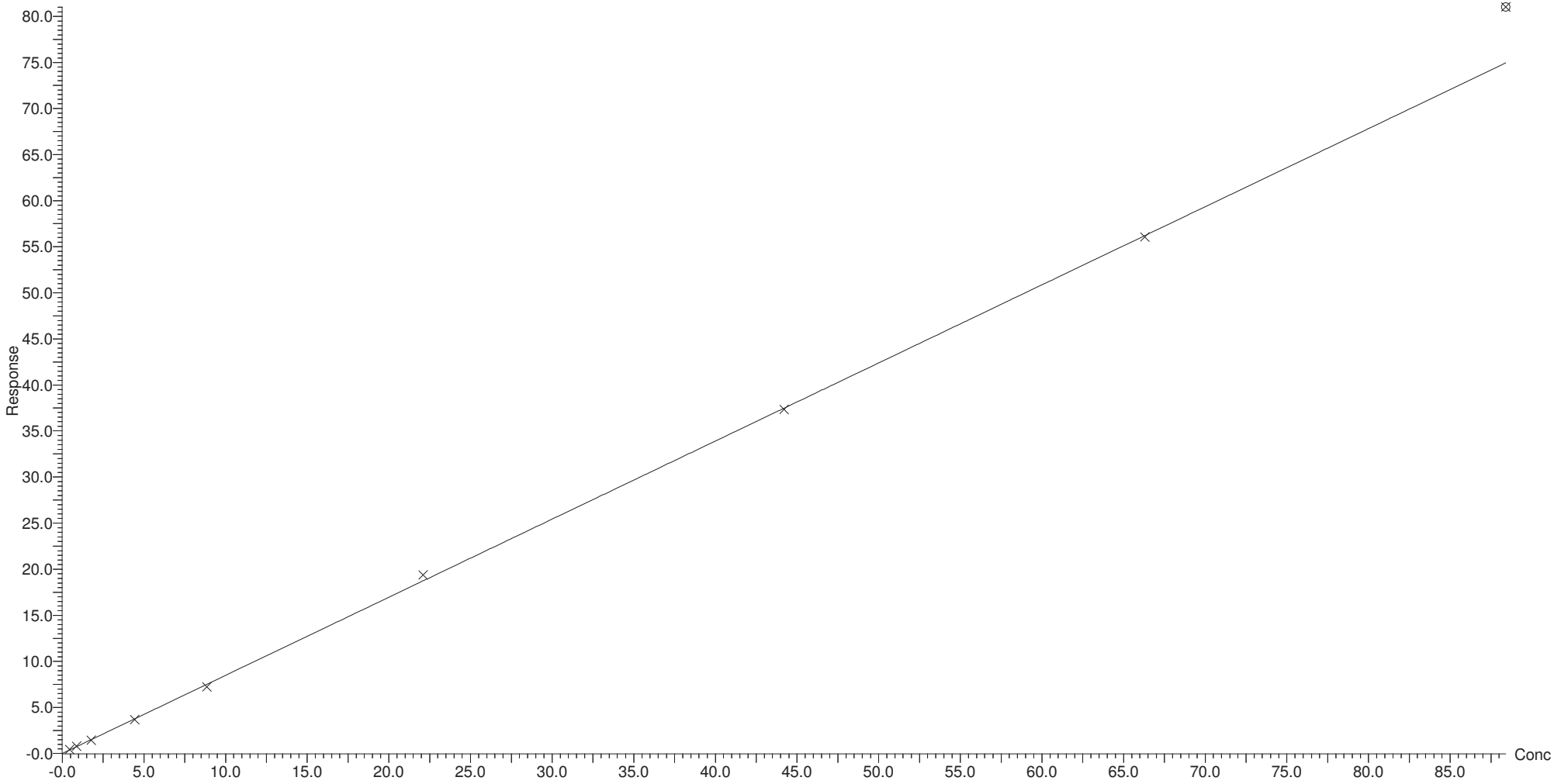
Vista Analytical Laboratory Q1

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

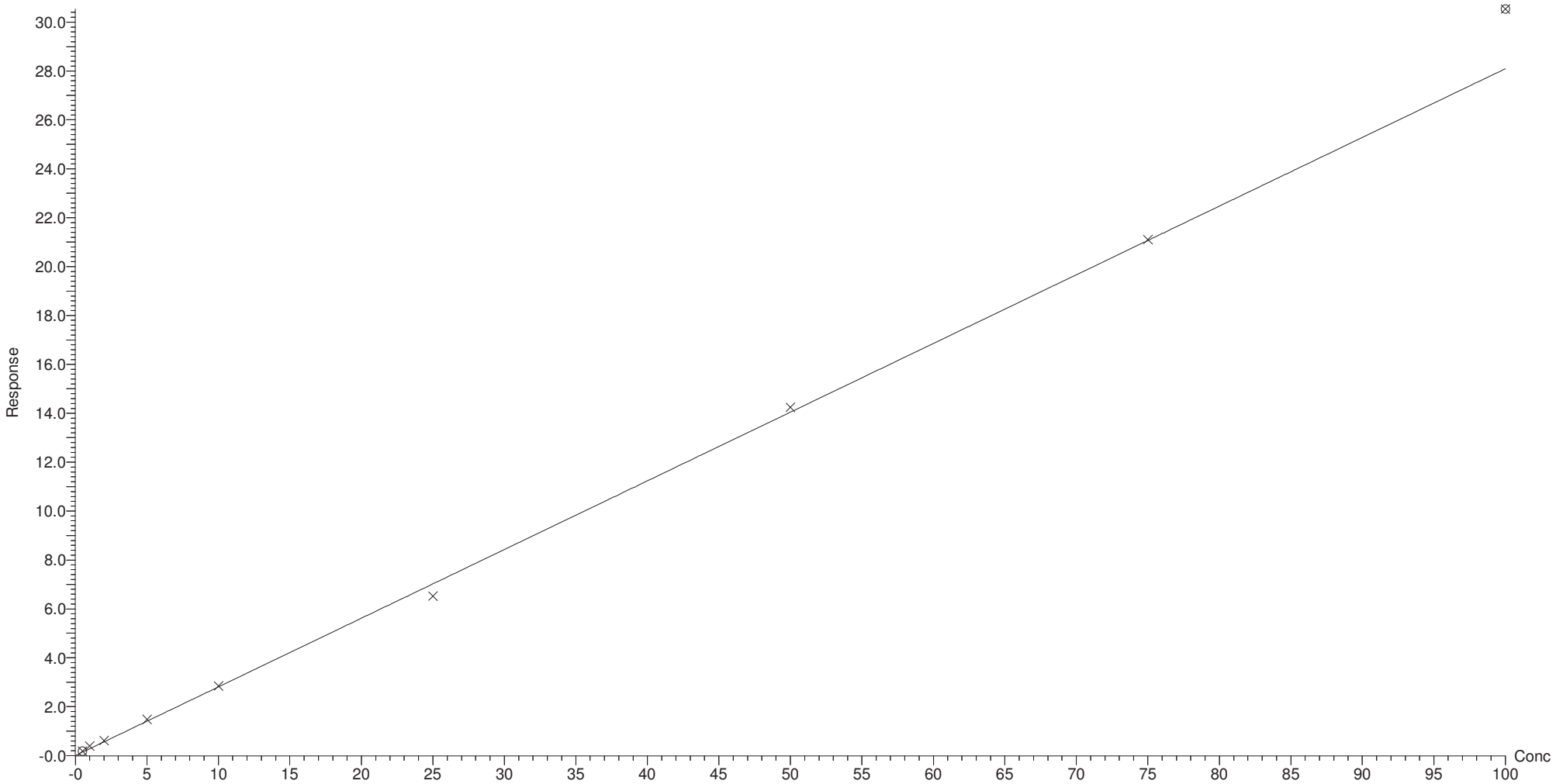
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999572
Calibration curve: 0.847748 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

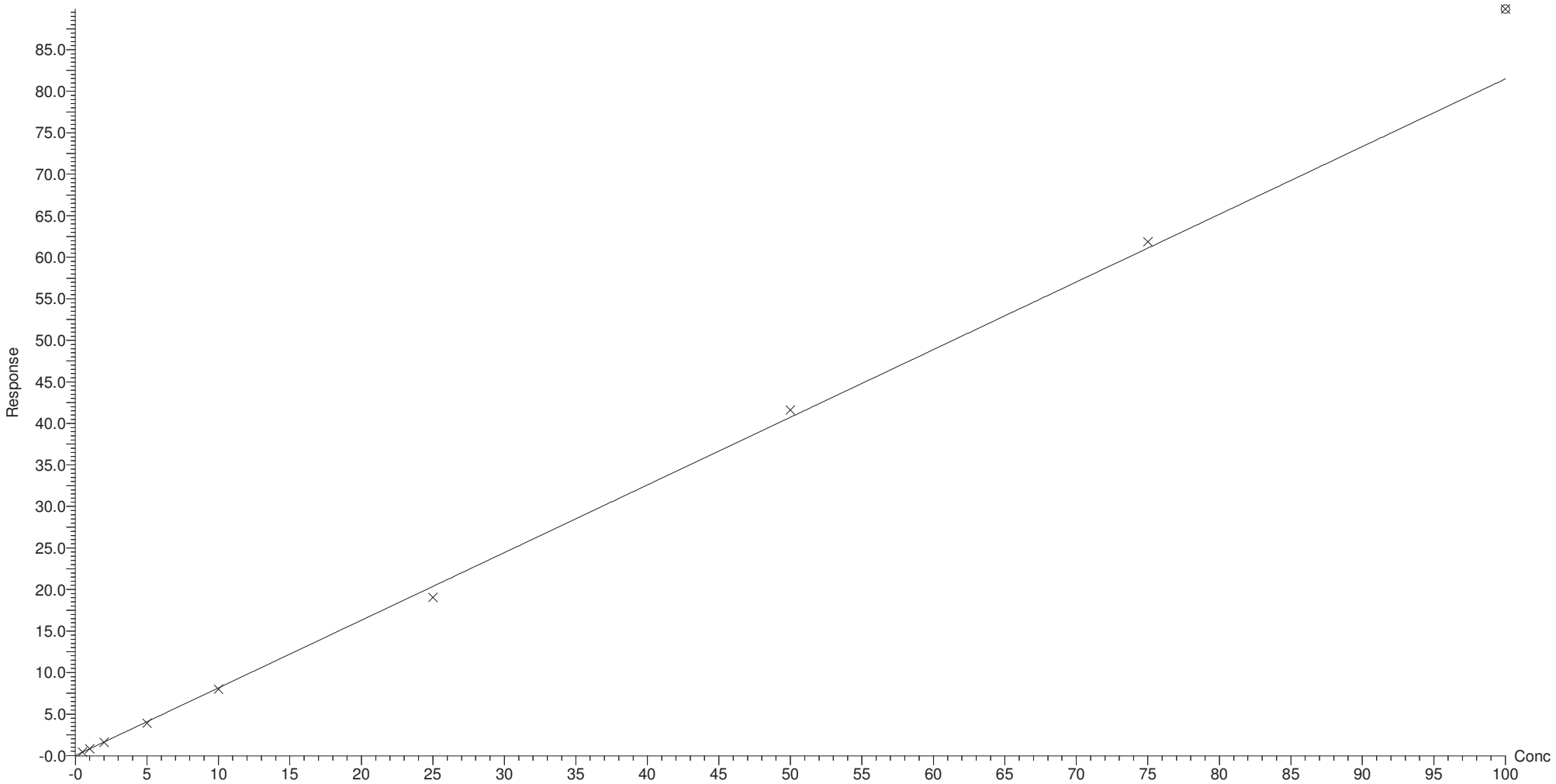
Compound name: PFHxA
Coefficient of Determination: R^2 = 0.997658
Calibration curve: 0.280929 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

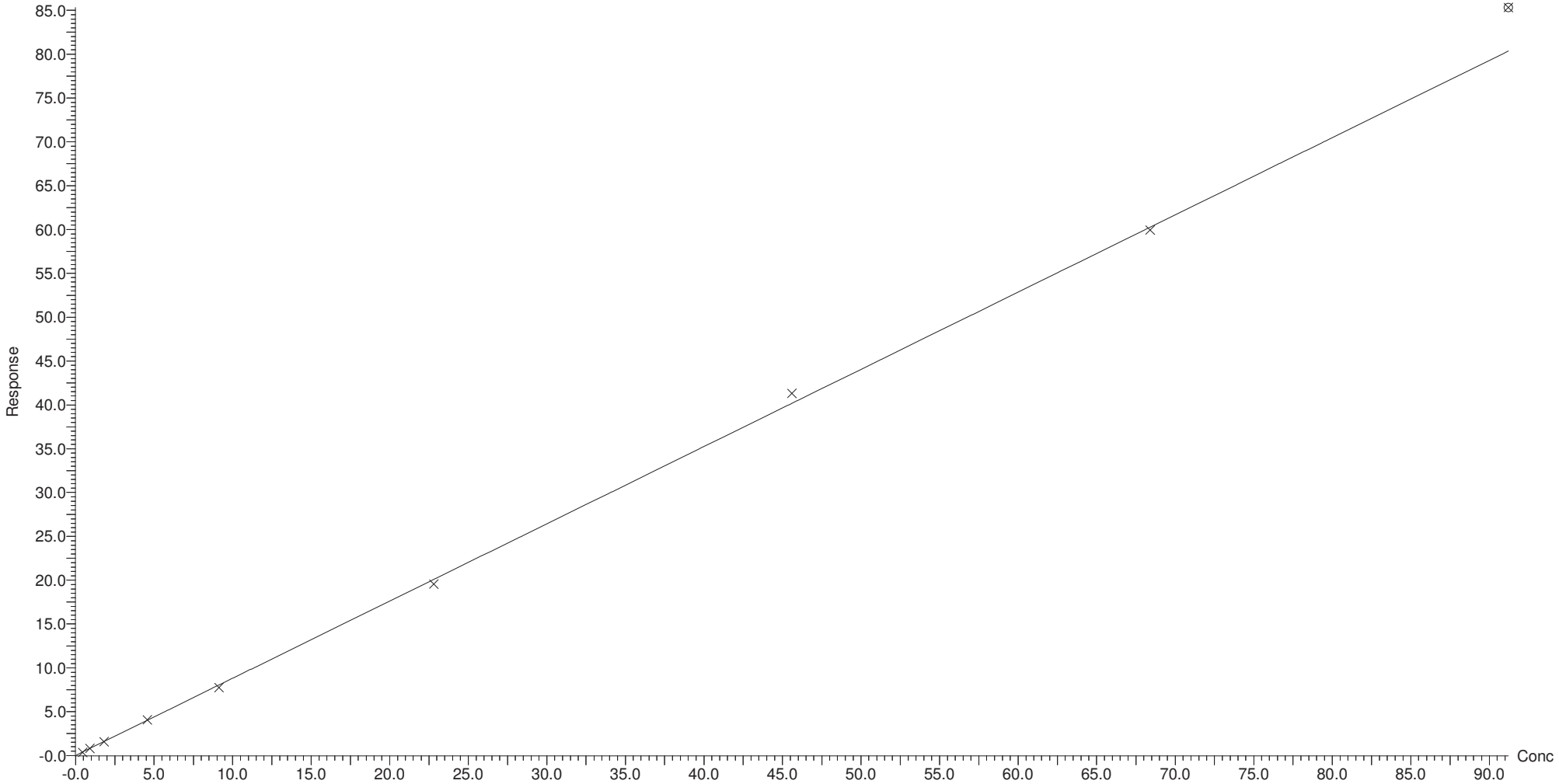
Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998990
Calibration curve: 0.814762 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

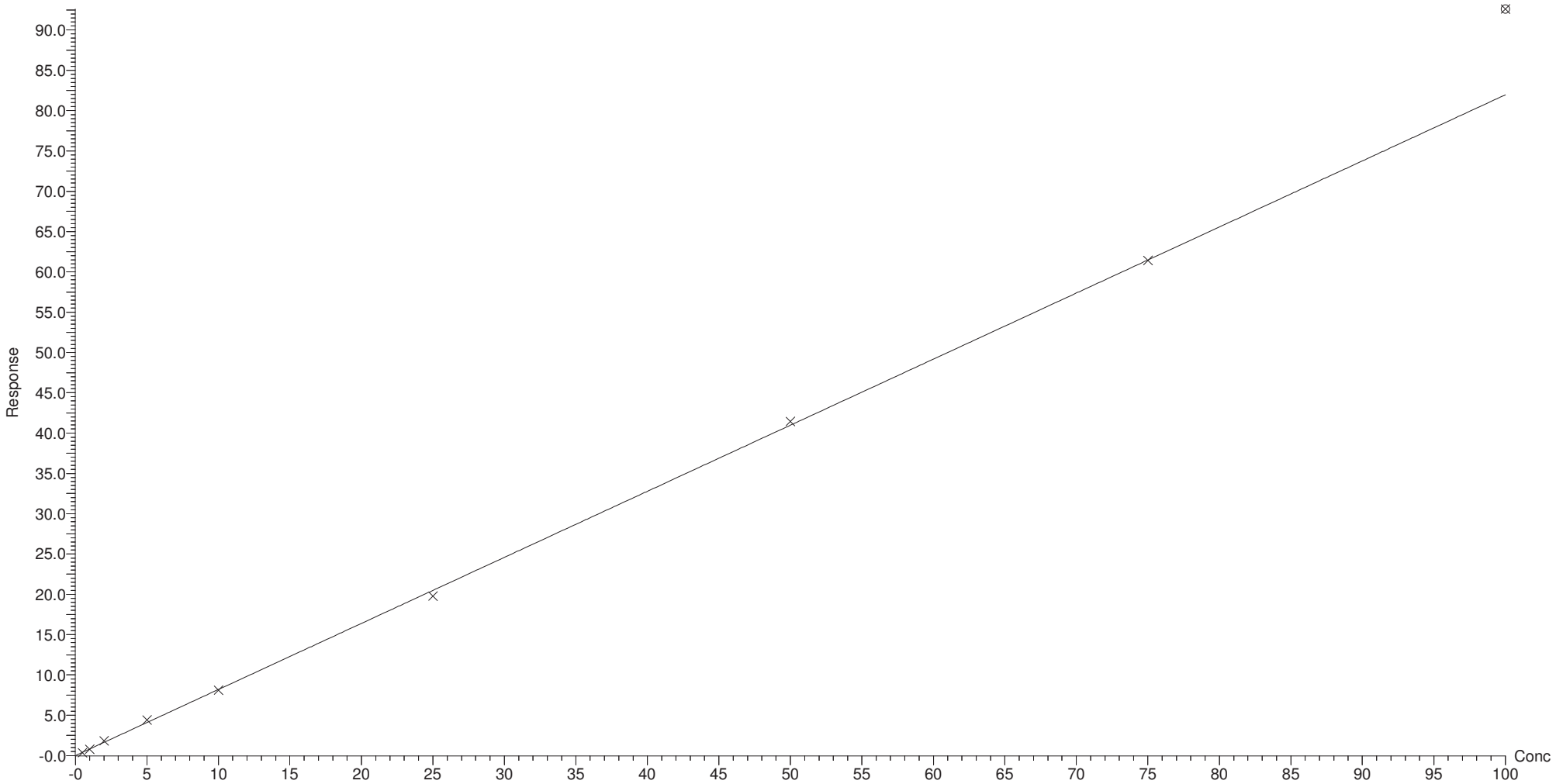
Compound name: PFHxS
Coefficient of Determination: R^2 = 0.999492
Calibration curve: 0.881042 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

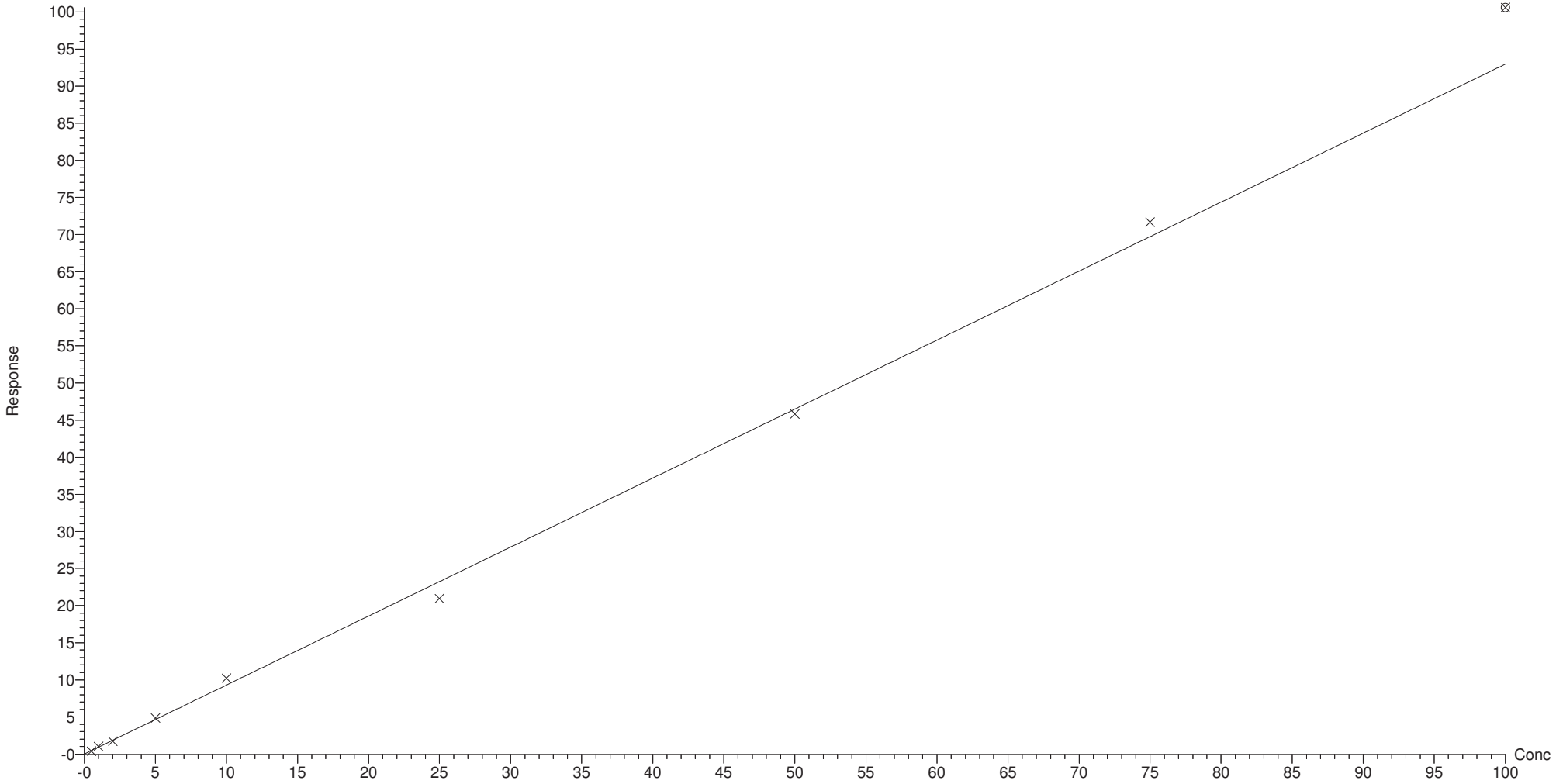
Compound name: PFOA
Coefficient of Determination: R^2 = 0.999280
Calibration curve: 0.819597 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

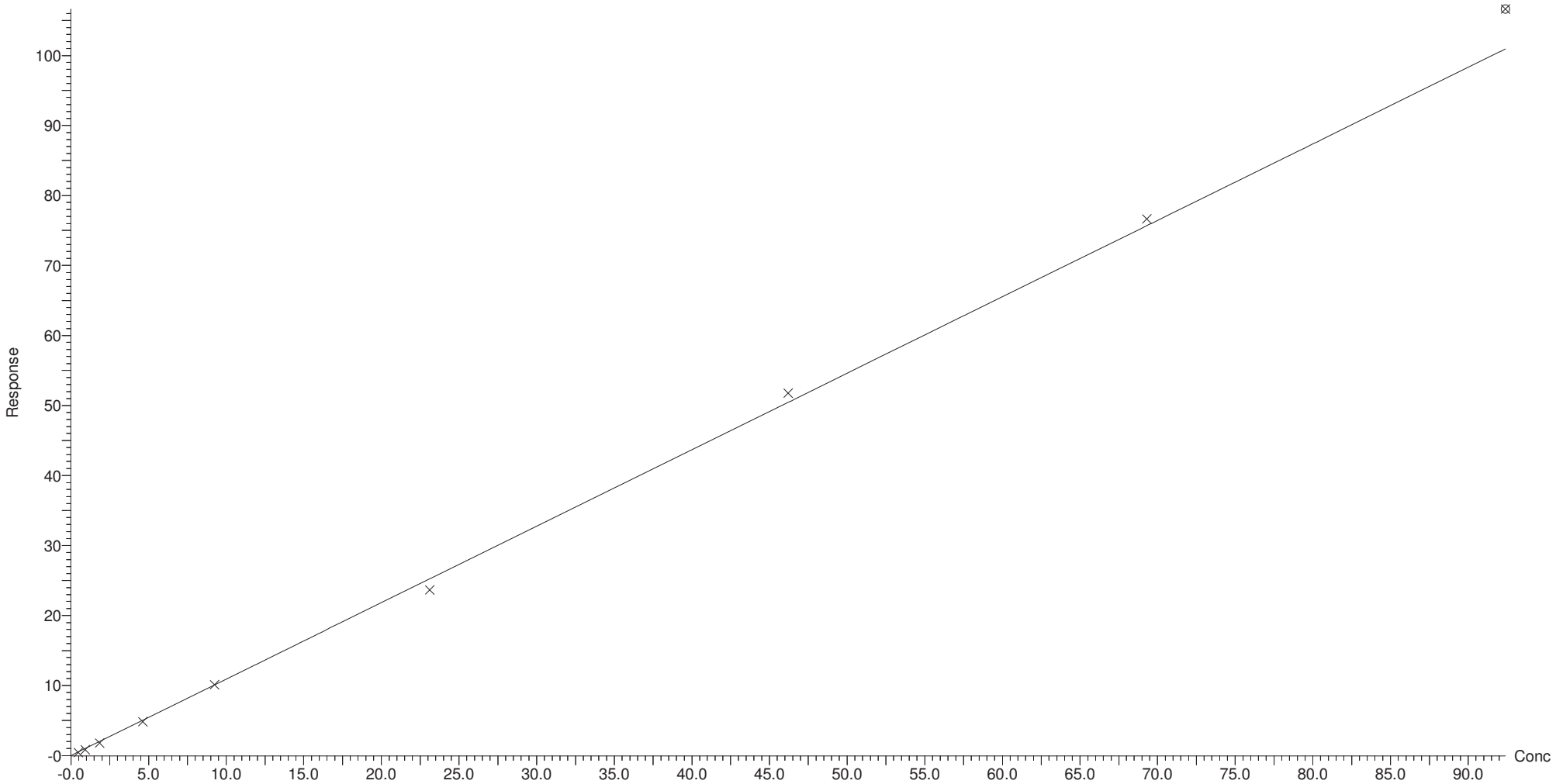
Compound name: PFNA
Coefficient of Determination: R^2 = 0.996962
Calibration curve: 0.929594 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

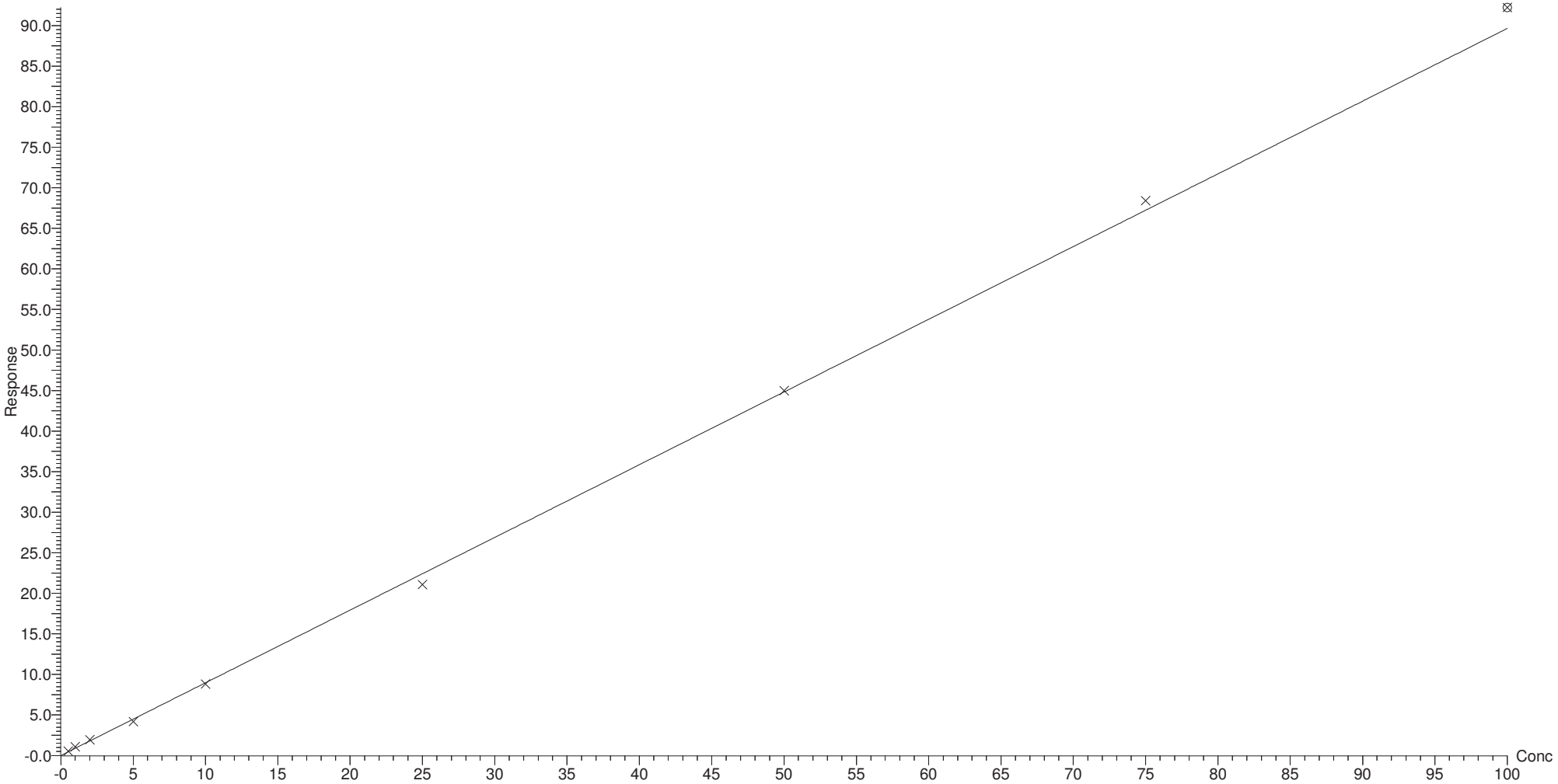
Compound name: PFOS
Coefficient of Determination: R^2 = 0.998570
Calibration curve: 1.09219 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

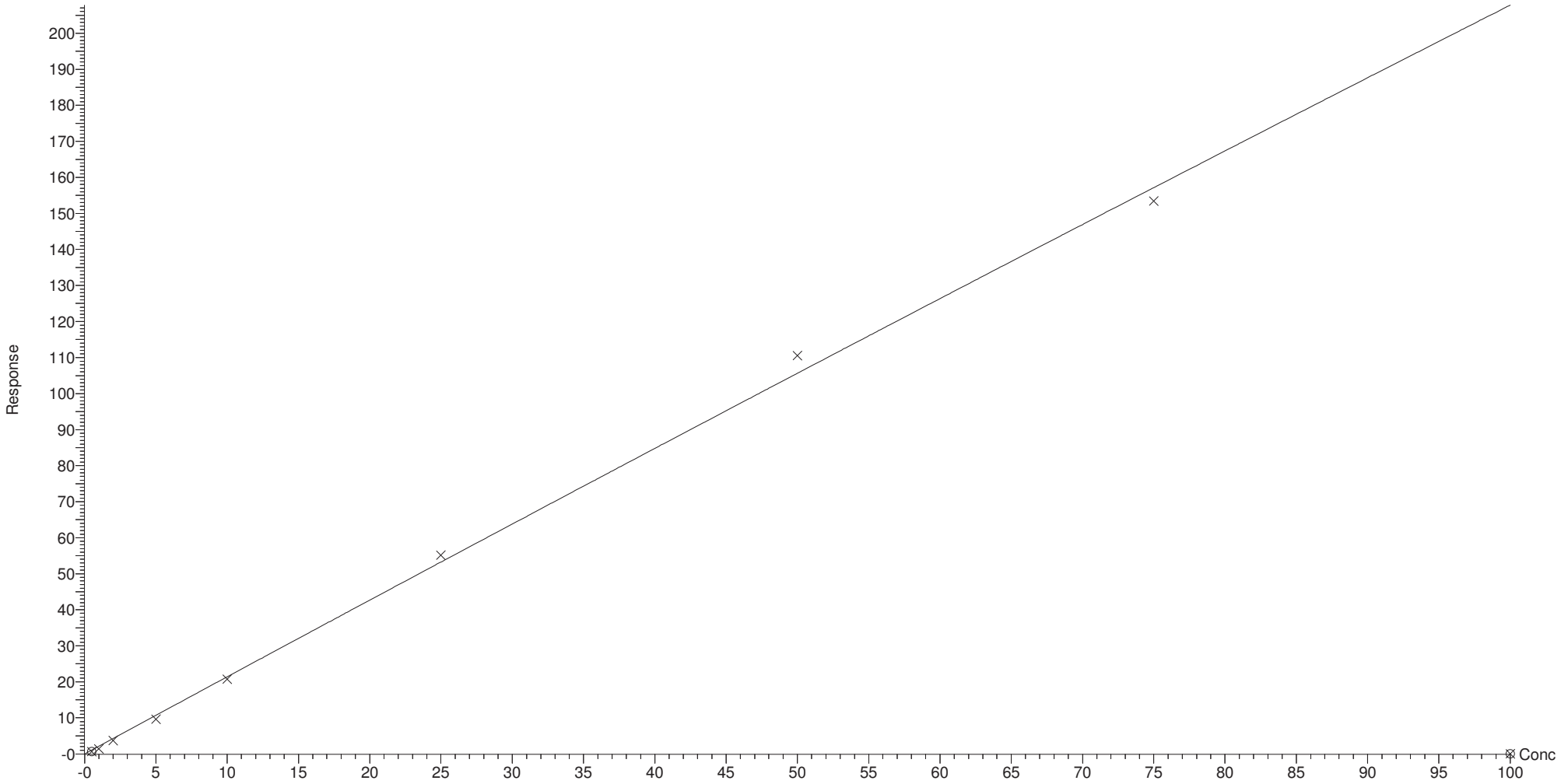
Compound name: PFDA
Coefficient of Determination: R^2 = 0.998541
Calibration curve: 0.896382 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

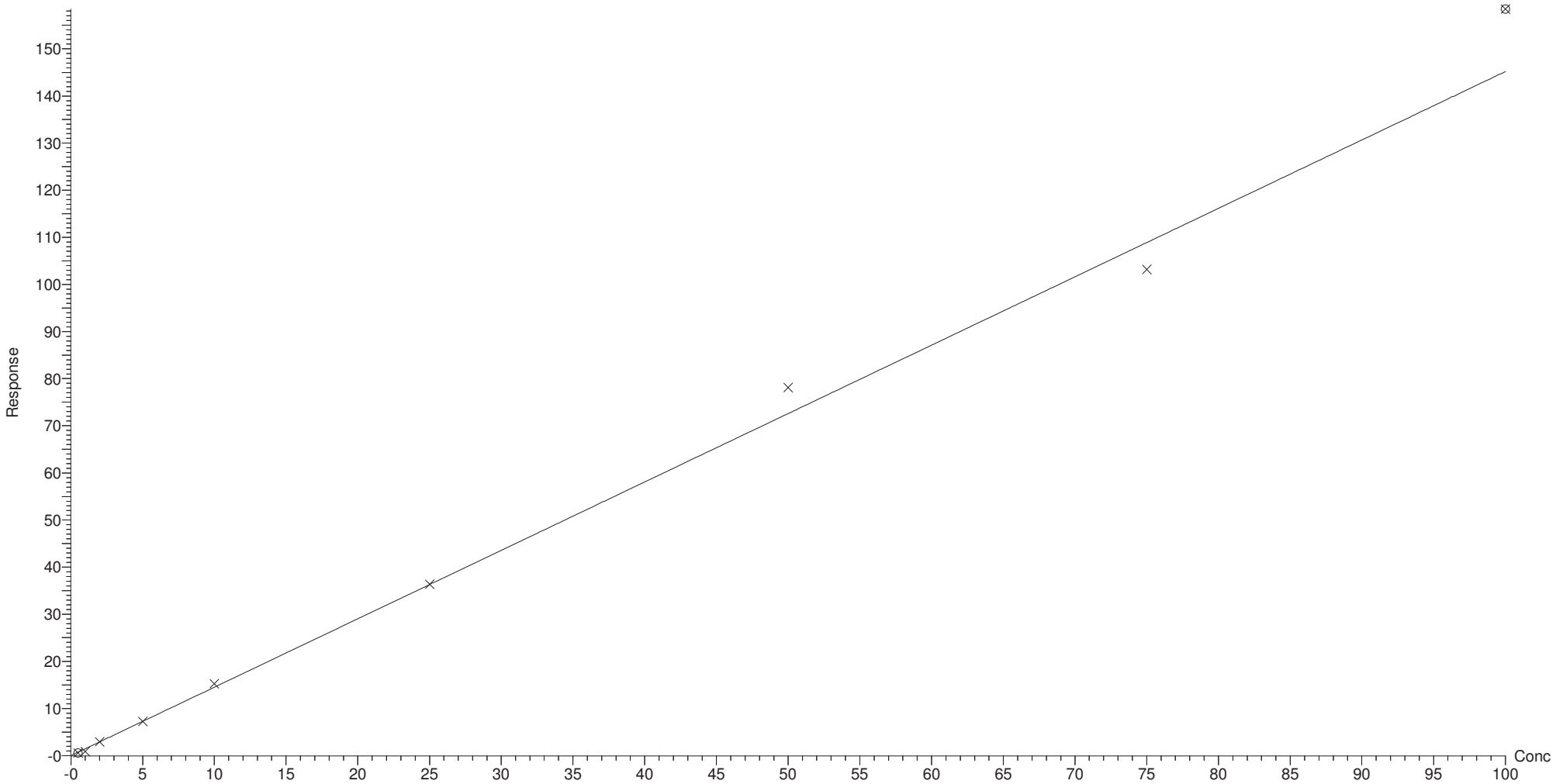
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.997234
Calibration curve: -0.000697322 * x^2 + 2.14772 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

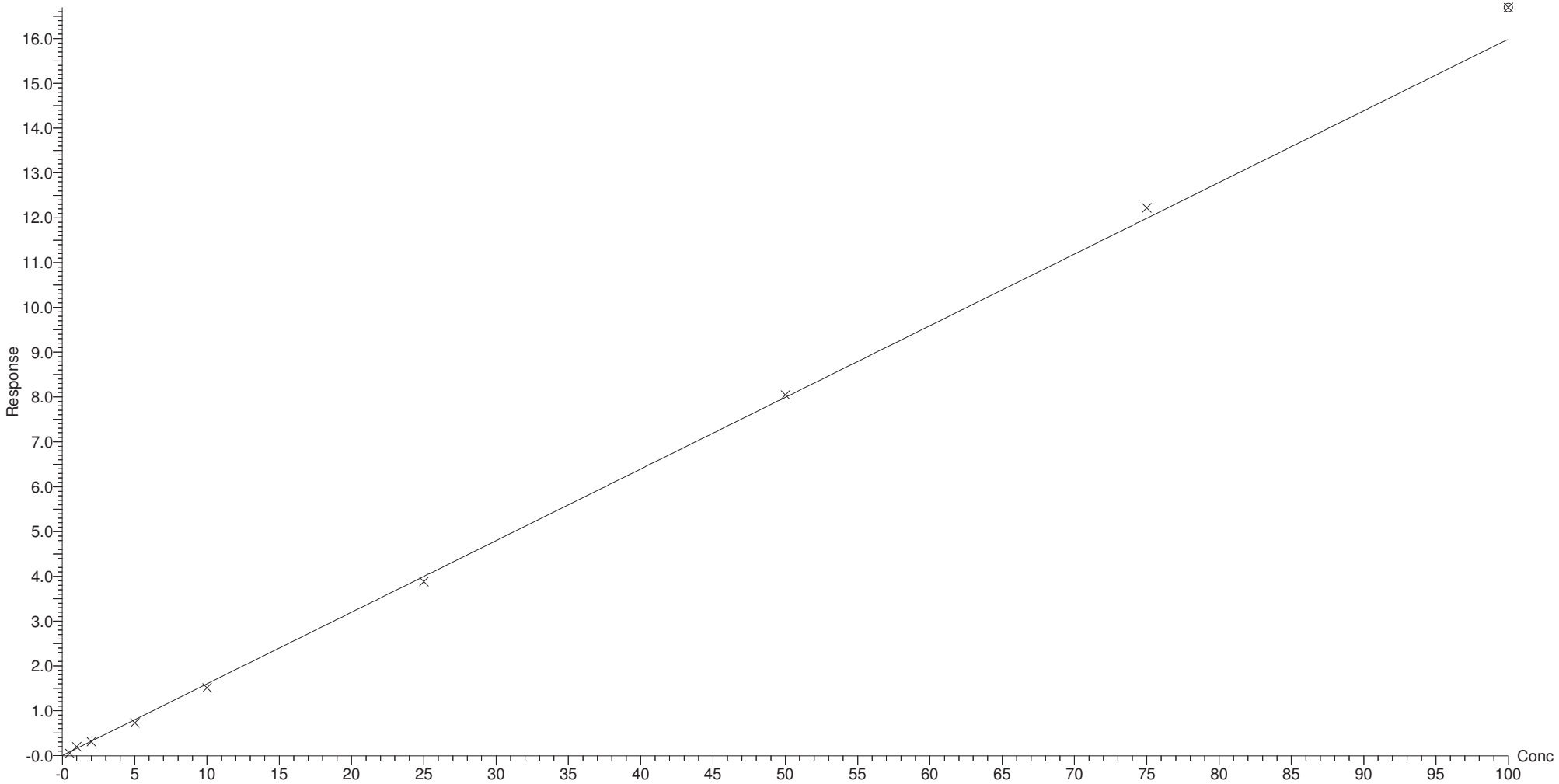
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.995268
Calibration curve: 1.45186 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

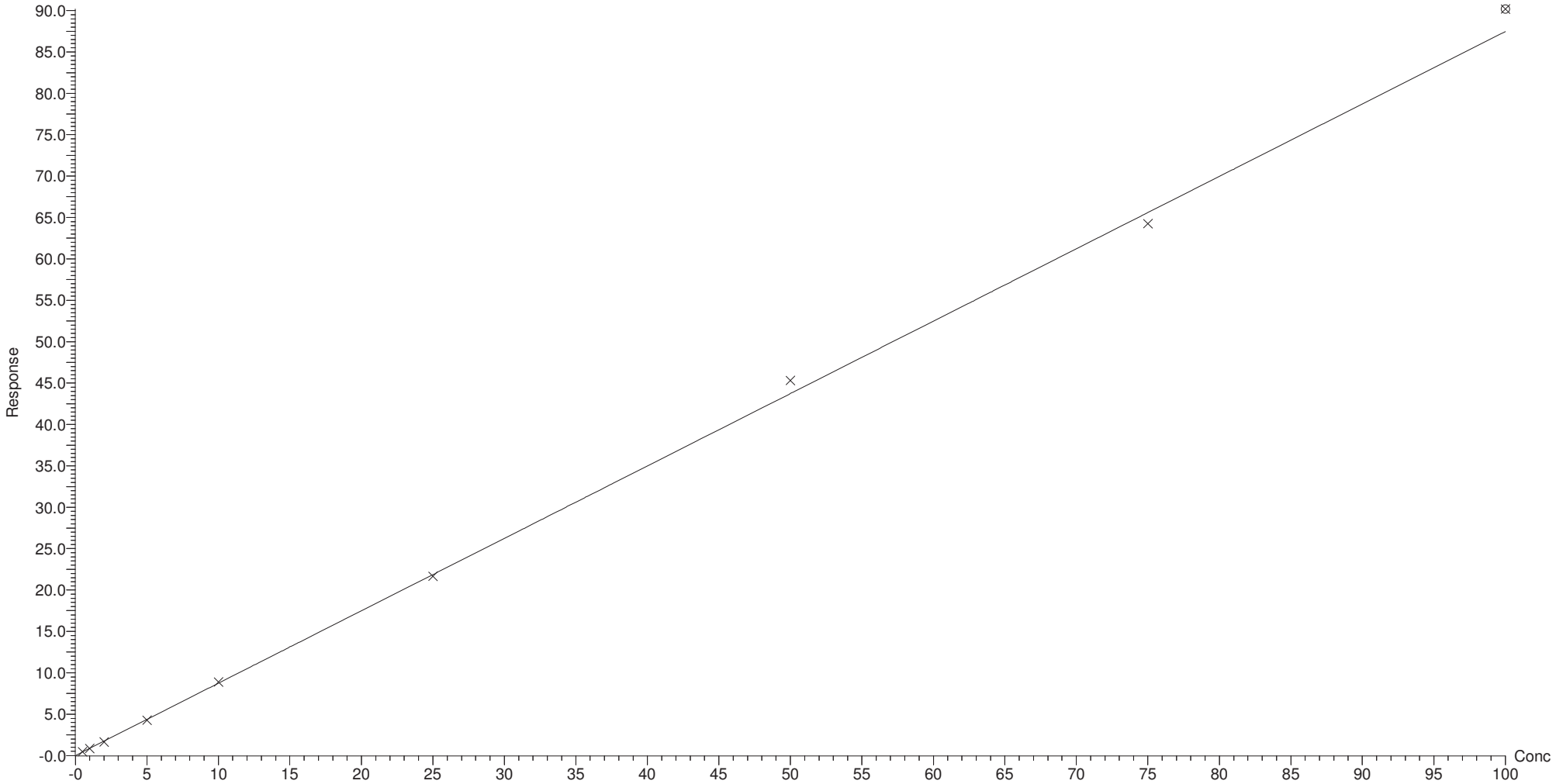
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998353
Calibration curve: 0.159857 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

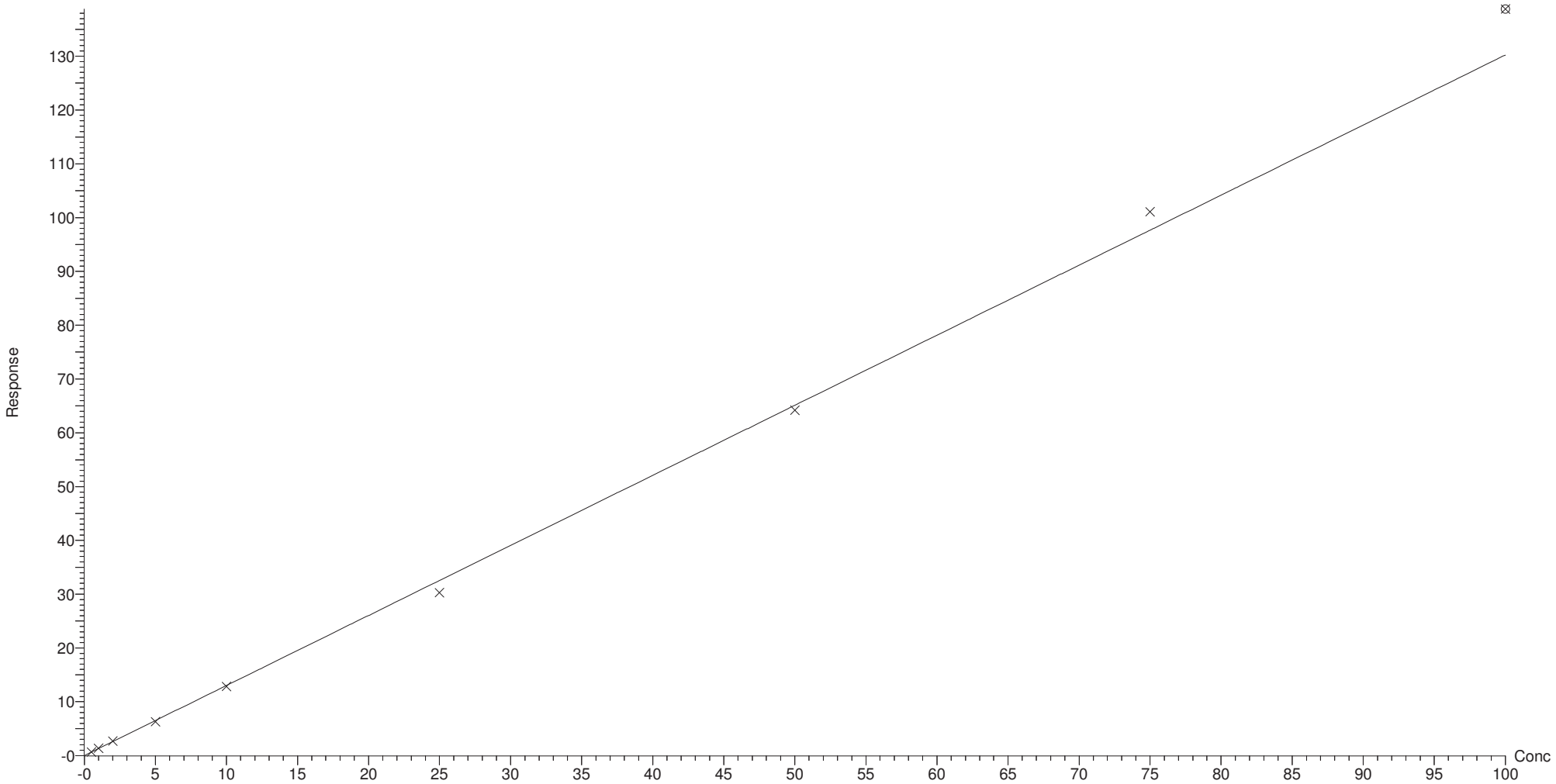
Compound name: PFUnA
Coefficient of Determination: R^2 = 0.999263
Calibration curve: 0.874668 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

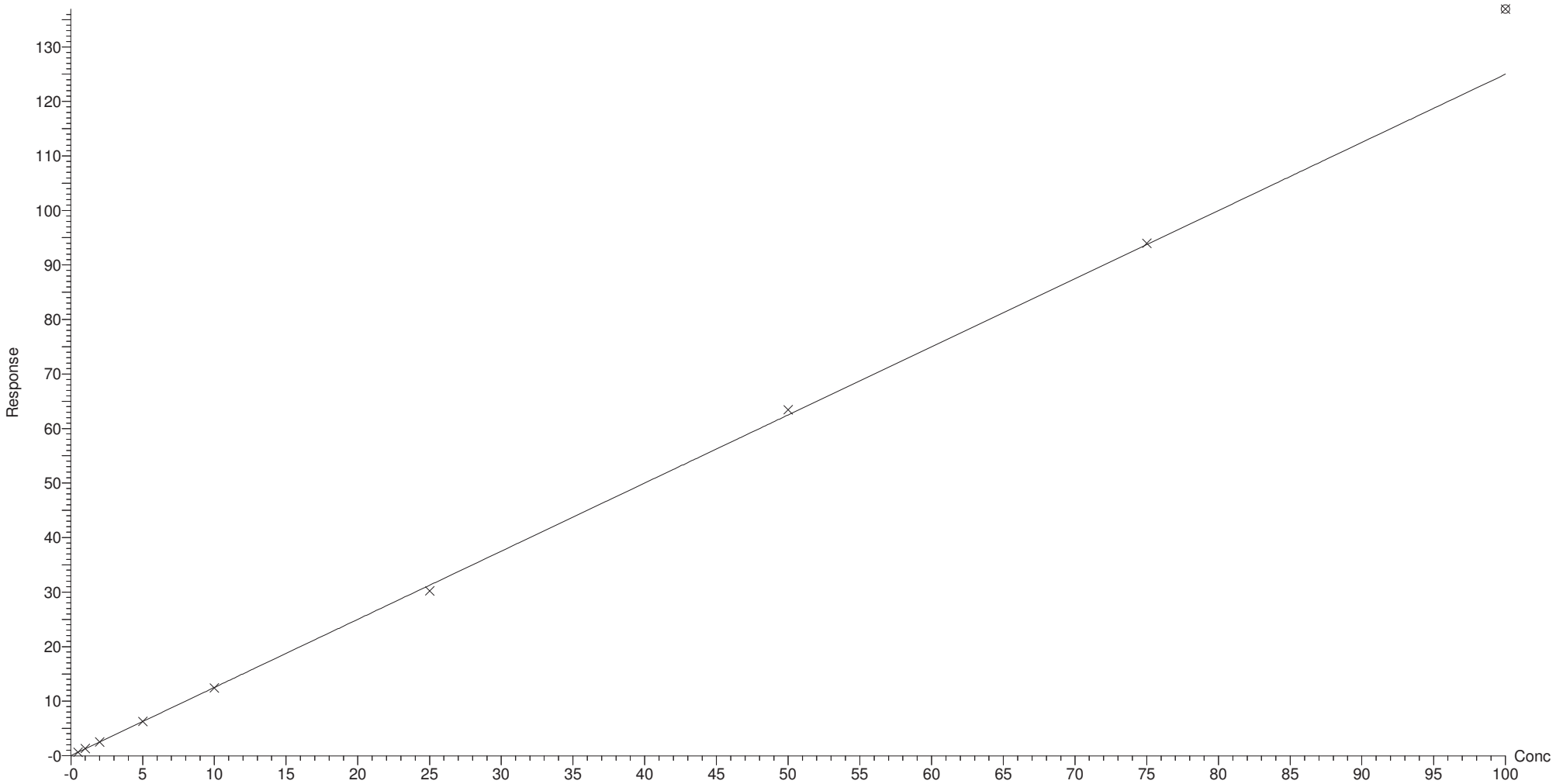
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998437
Calibration curve: 1.30234 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:50:09 Pacific Standard Time

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999723
Calibration curve: 1.25001 * 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

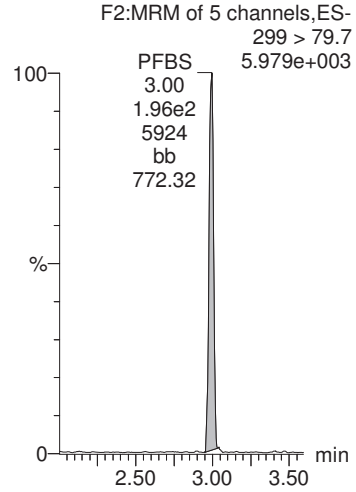
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

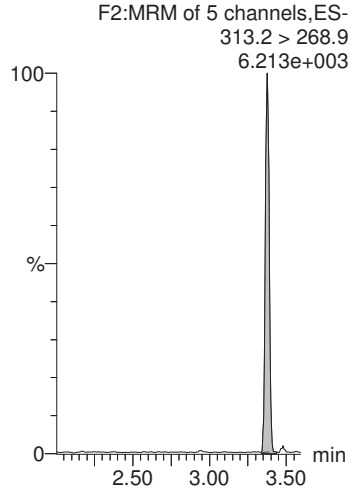
Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_2, Date: 25-Jan-2018, Time: 15:33:17, ID: ST180125G3-1 PFC CS-3 537 18A2408, Description: PFC CS-3 537 18A2408

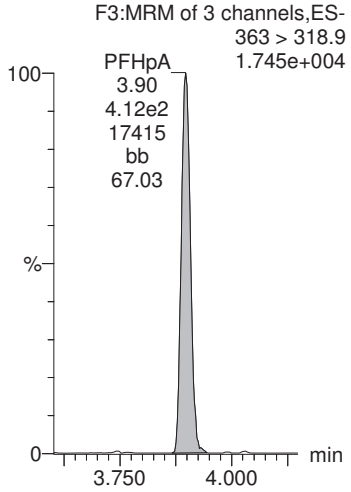
PFBS



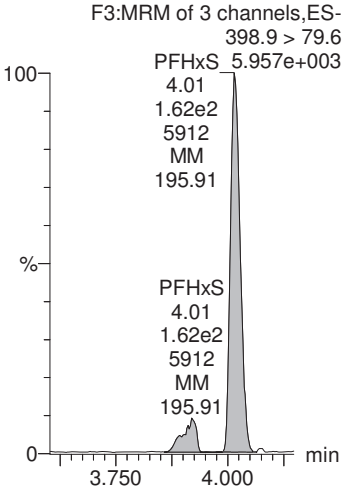
PFHxA



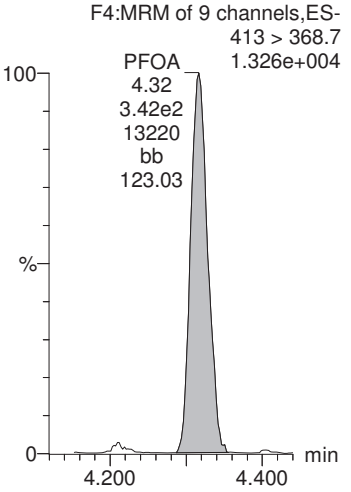
PFHpA



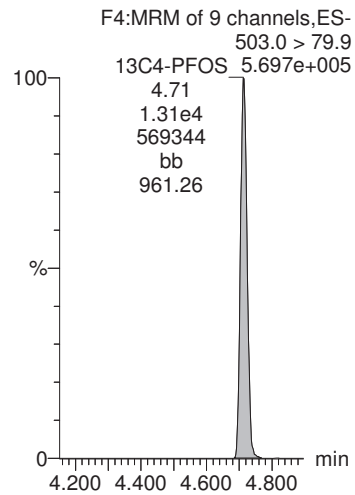
PFHxS



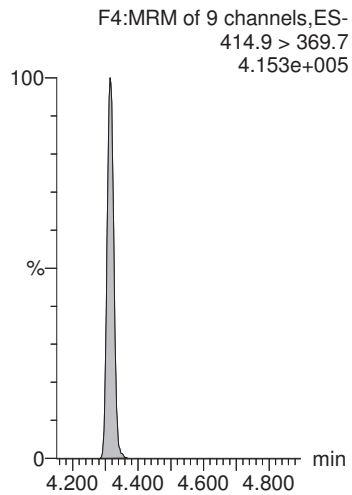
PFOA



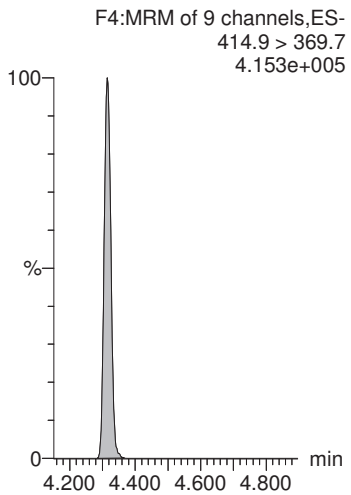
13C4-PFOS



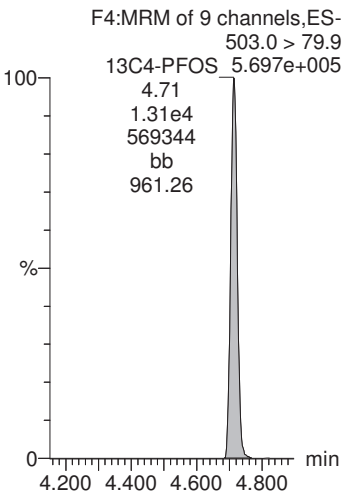
13C2-PFOA



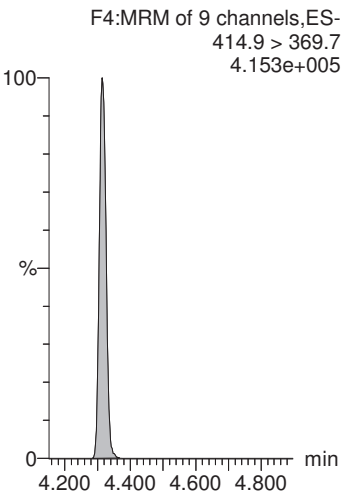
13C2-PFOA



13C4-PFOS



13C2-PFOA



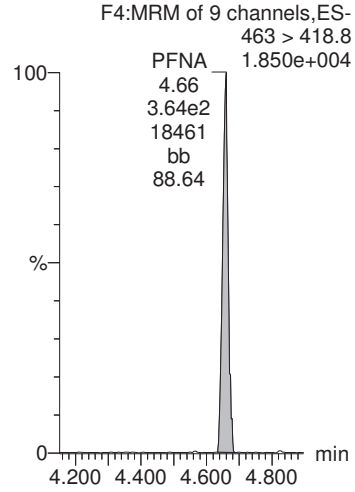
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

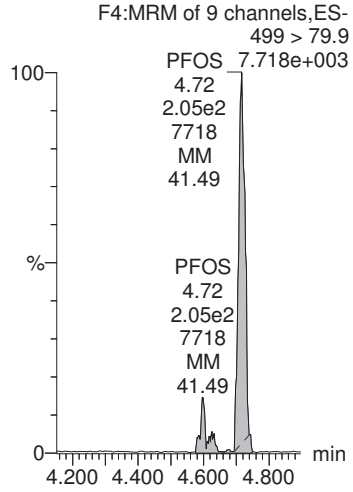
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_2, Date: 25-Jan-2018, Time: 15:33:17, ID: ST180125G3-1 PFC CS-3 537 18A2408, Description: PFC CS-3 537 18A2408

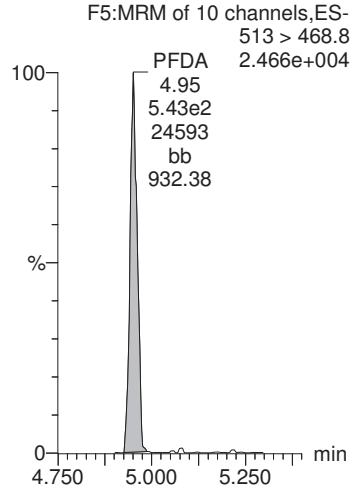
PFNA



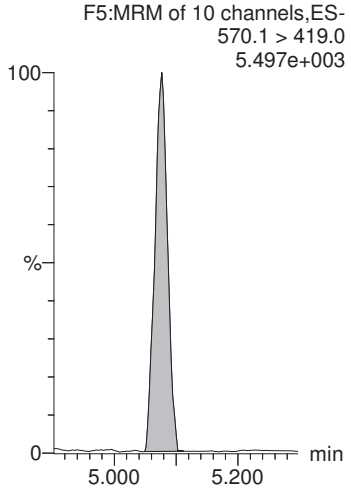
PFOS



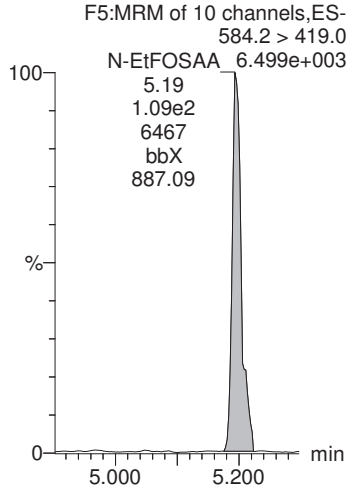
PFDA



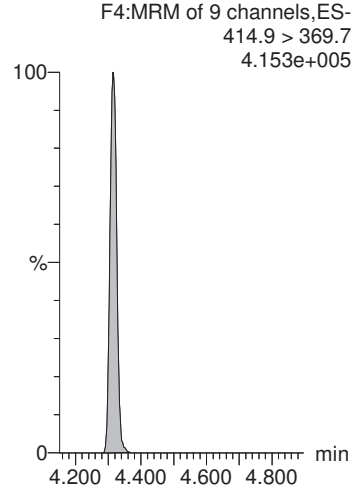
N-MeFOSAA



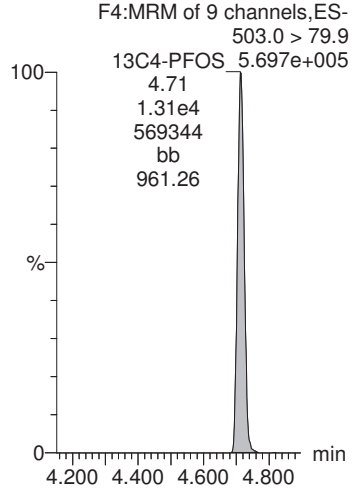
N-EtFOSAA



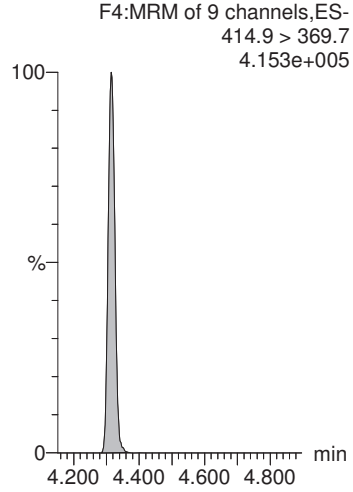
13C2-PFOA



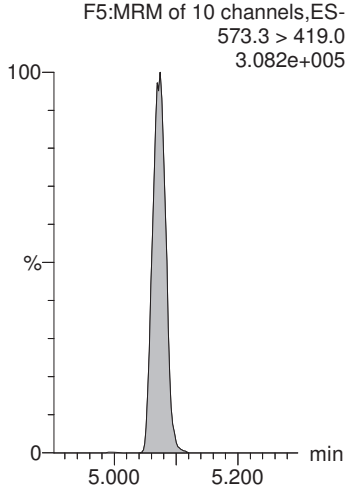
13C4-PFOS



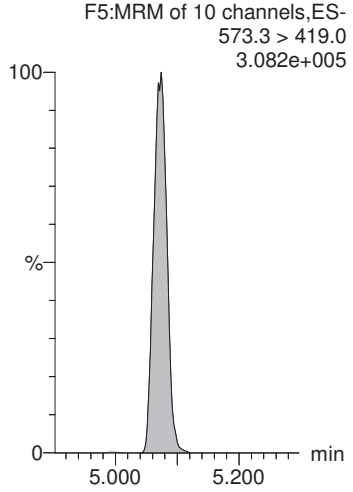
13C2-PFOA



d3-N-MeFOSAA



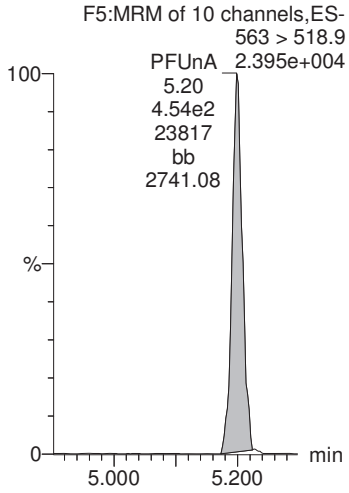
d3-N-MeFOSAA



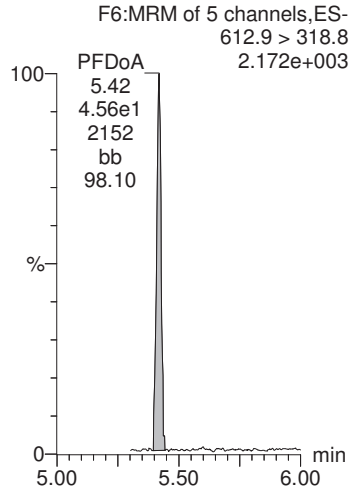
MJT 1/26/2018

Name: 180125G3_2, Date: 25-Jan-2018, Time: 15:33:17, ID: ST180125G3-1 PFC CS-3 537 18A2408, Description: PFC CS-3 537 18A2408

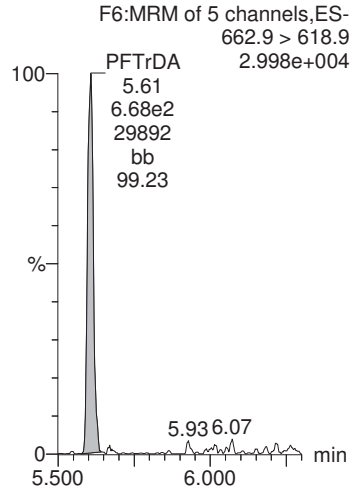
PFUnA



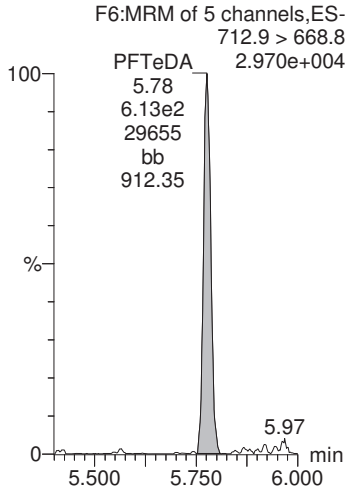
PFDoA



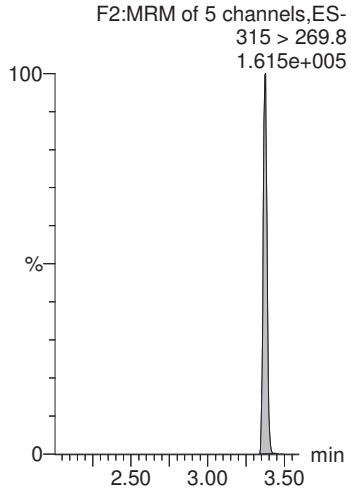
PFTrDA



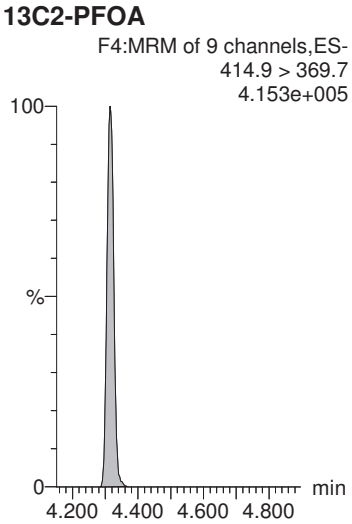
PFTeDA



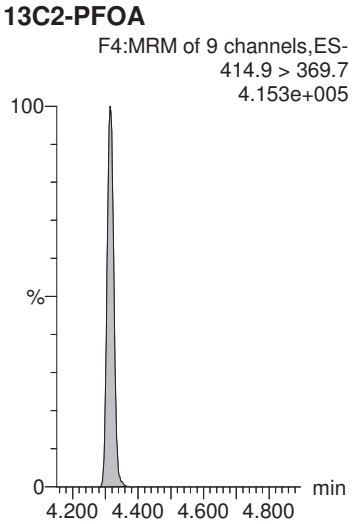
13C2-PFHxA



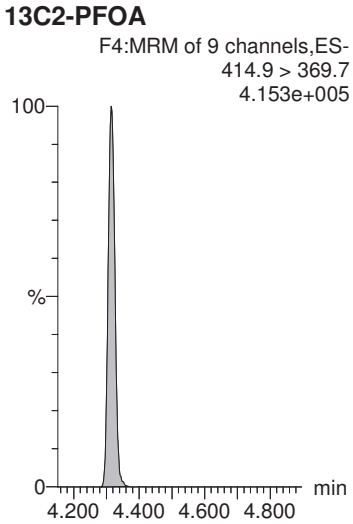
13C2-PFOA



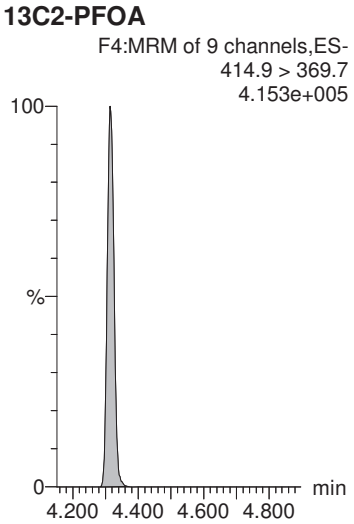
13C2-PFOA



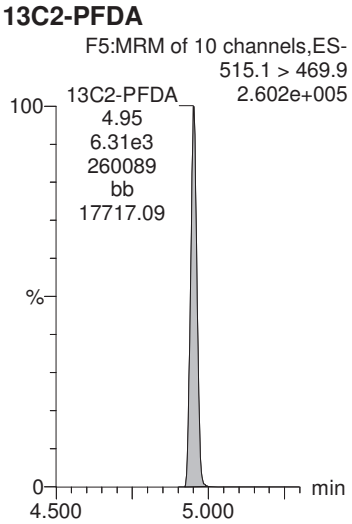
13C2-PFOA



13C2-PFOA



13C2-PFDA



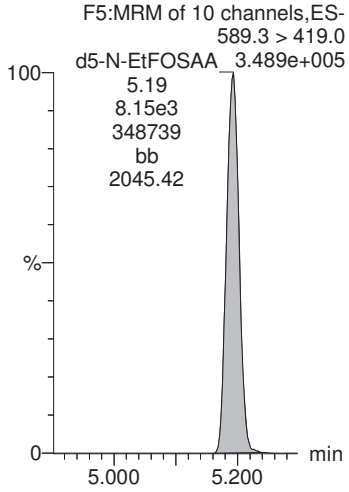
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_2, Date: 25-Jan-2018, Time: 15:33:17, ID: ST180125G3-1 PFC CS-3 537 18A2408, Description: PFC CS-3 537 18A2408

d5-N-EtFOSAA



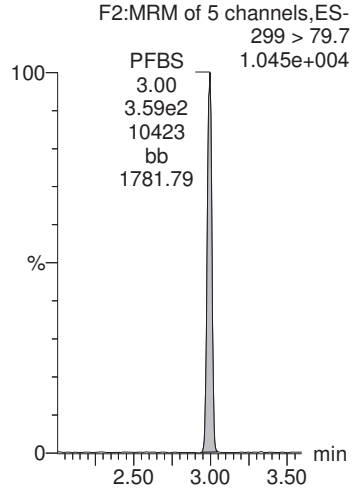
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

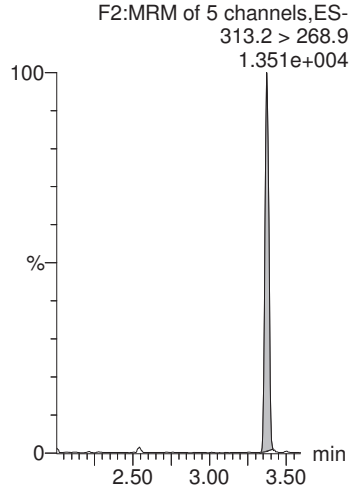
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_3, Date: 25-Jan-2018, Time: 15:45:40, ID: ST180125G3-2 PFC CS-2 537 18A2409, Description: PFC CS-2 537 18A2409

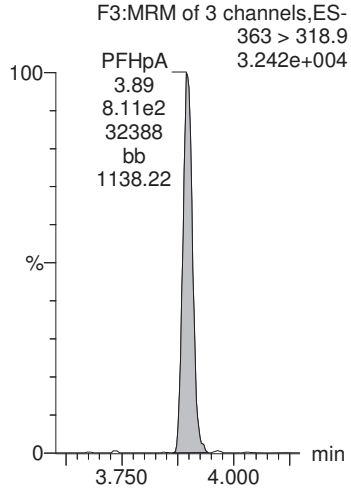
PFBS



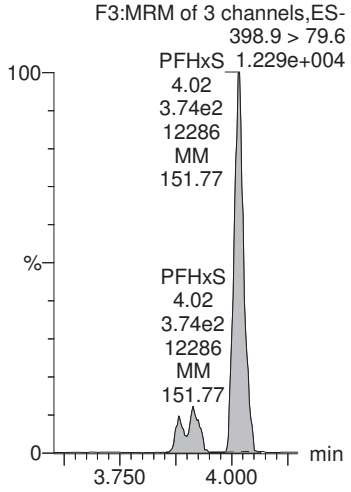
PFHxA



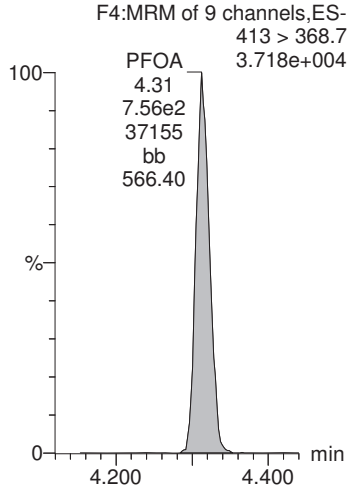
PFHpA



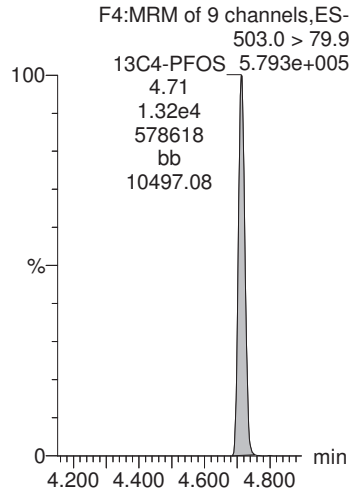
PFHxS



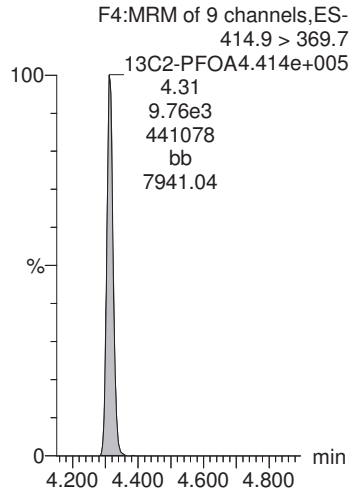
PFOA



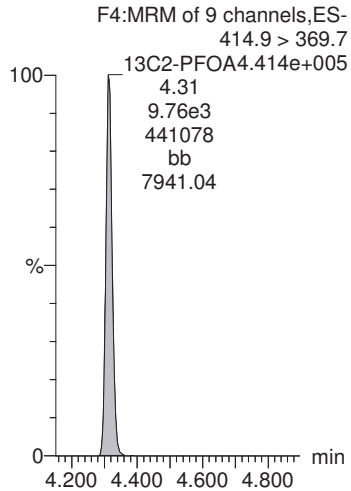
13C4-PFOS



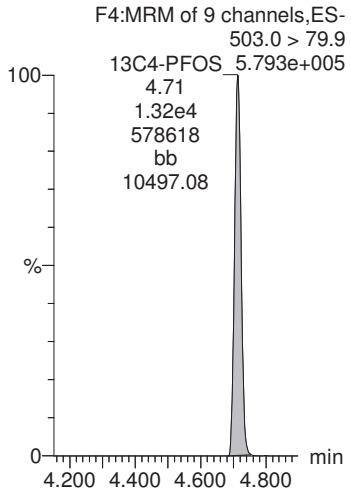
13C2-PFOA



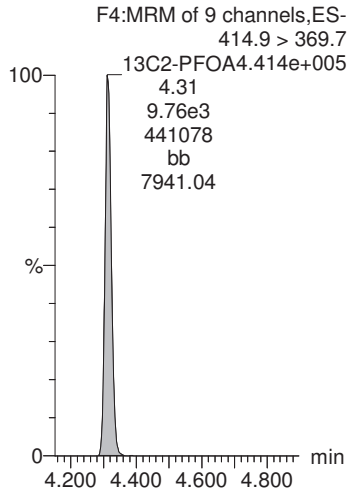
13C2-PFOA



13C4-PFOS



13C2-PFOA



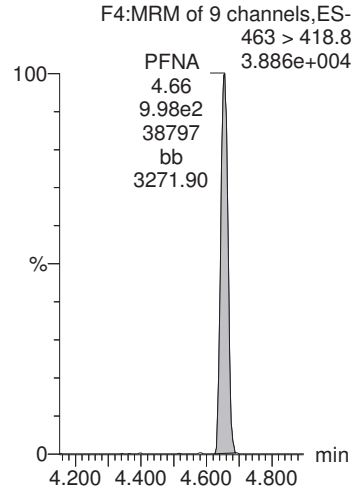
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

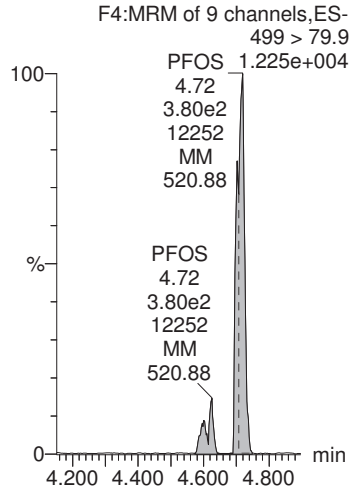
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_3, Date: 25-Jan-2018, Time: 15:45:40, ID: ST180125G3-2 PFC CS-2 537 18A2409, Description: PFC CS-2 537 18A2409

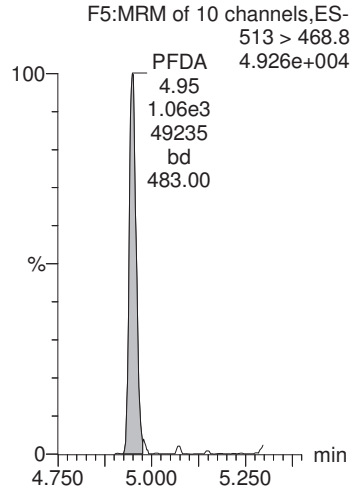
PFNA



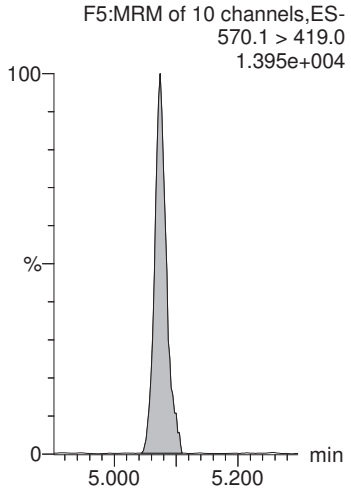
PFOS



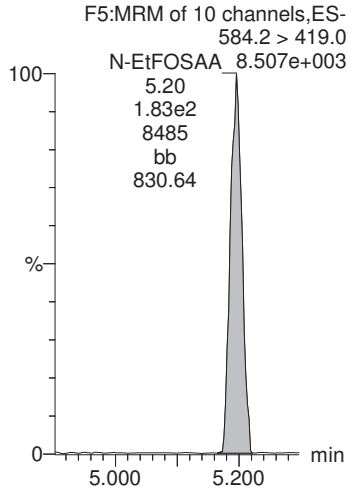
PFDA



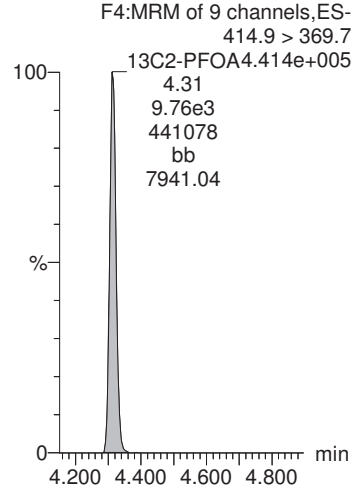
N-MeFOSAA



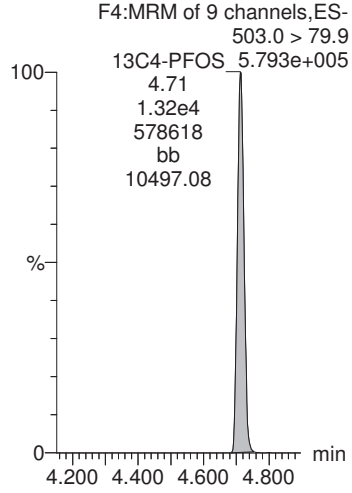
N-EtFOSAA



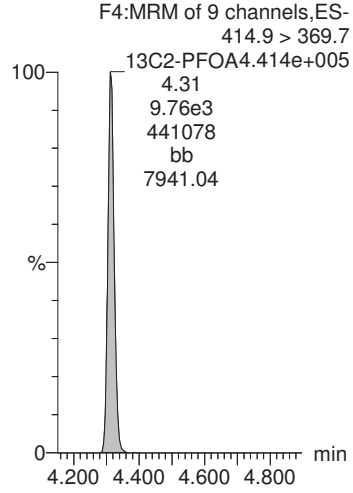
13C2-PFOA



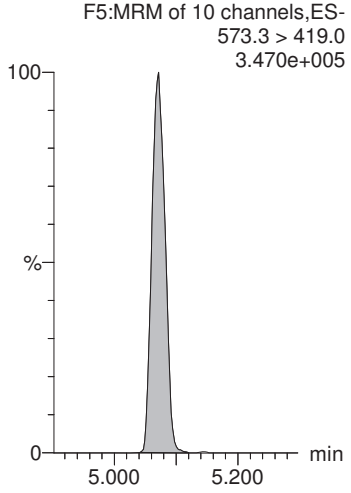
13C4-PFOS



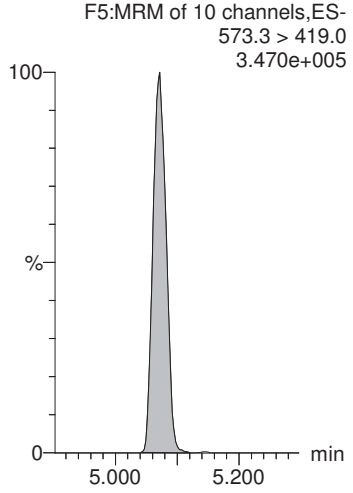
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



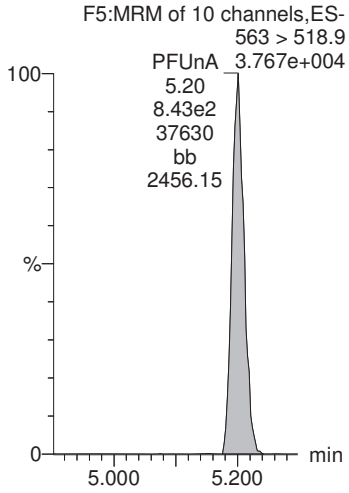
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

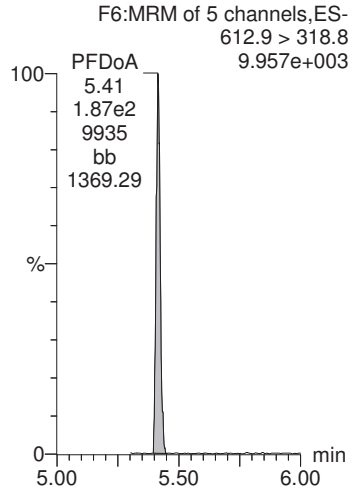
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_3, Date: 25-Jan-2018, Time: 15:45:40, ID: ST180125G3-2 PFC CS-2 537 18A2409, Description: PFC CS-2 537 18A2409

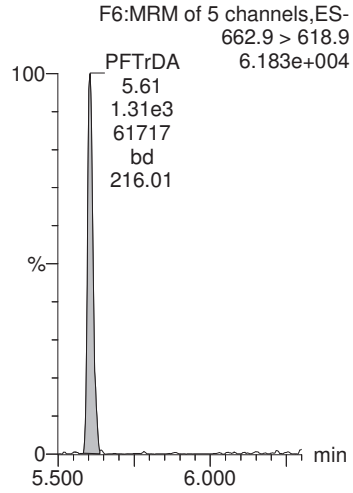
PFUnA



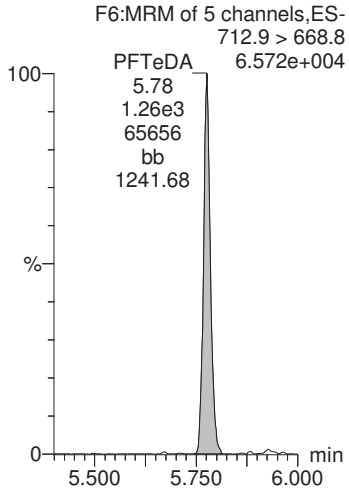
PFDoA



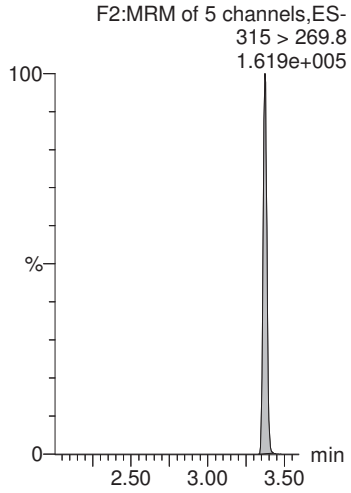
PFTrDA



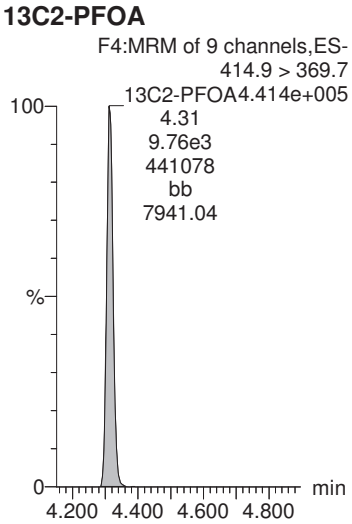
PFTeDA



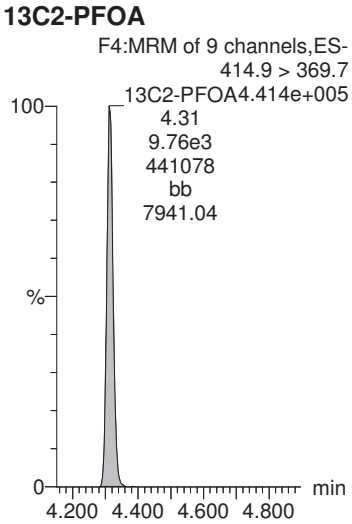
13C2-PFHxA



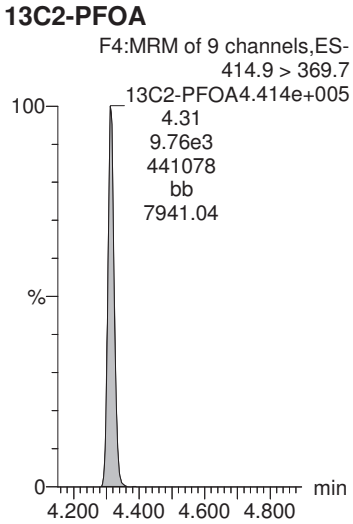
13C2-PFOA



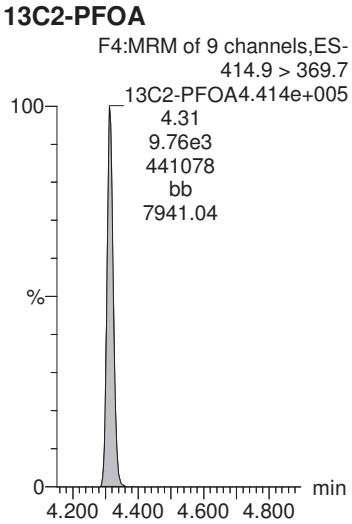
13C2-PFOA



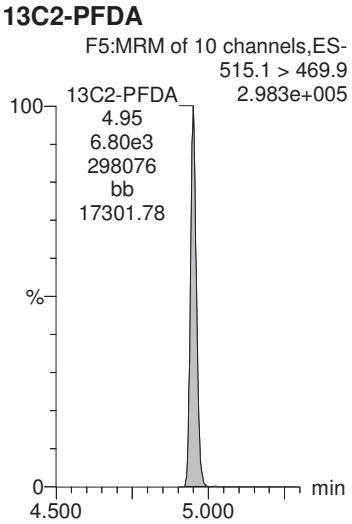
13C2-PFOA



13C2-PFOA



13C2-PFDA



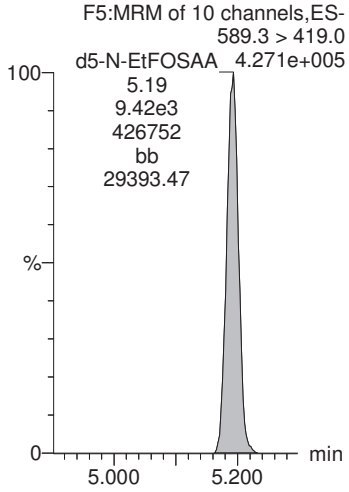
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_3, Date: 25-Jan-2018, Time: 15:45:40, ID: ST180125G3-2 PFC CS-2 537 18A2409, Description: PFC CS-2 537 18A2409

d5-N-EtFOSAA



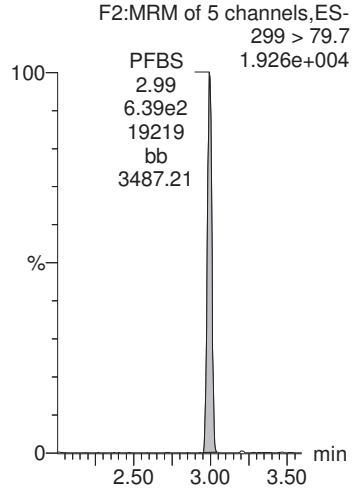
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

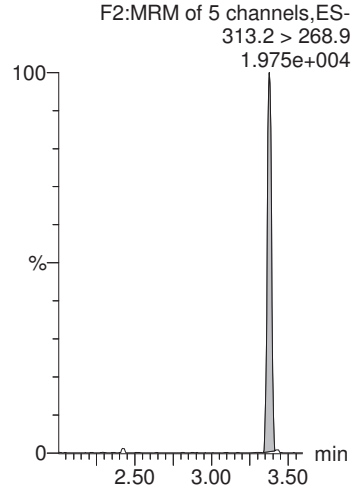
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_4, Date: 25-Jan-2018, Time: 15:58:05, ID: ST180125G3-3 PFC CS-1 537 18A2512, Description: PFC CS-1 537 18A2512

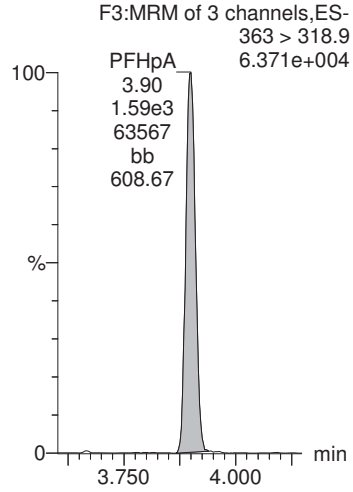
PFBS



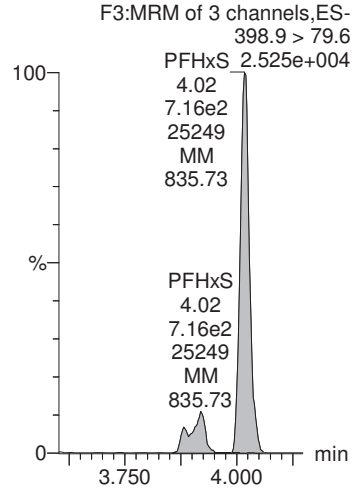
PFHxA



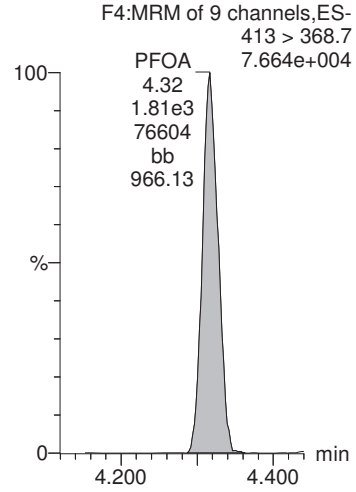
PFHpA



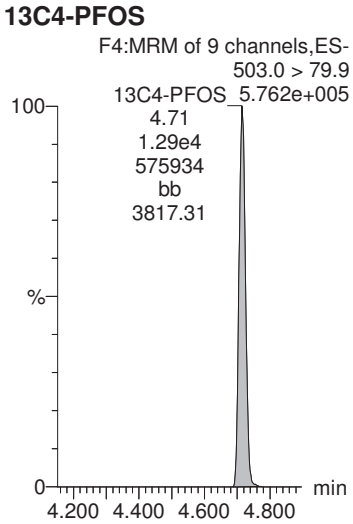
PFHxS



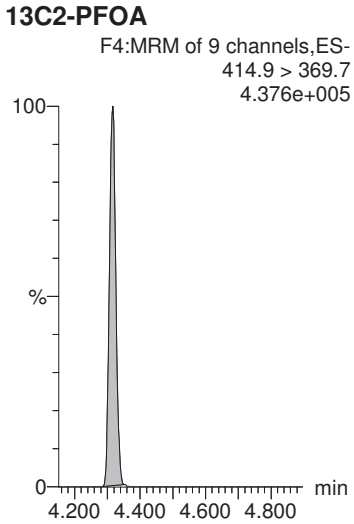
PFOA



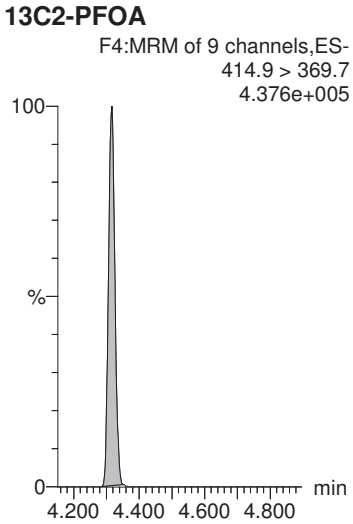
13C4-PFOS



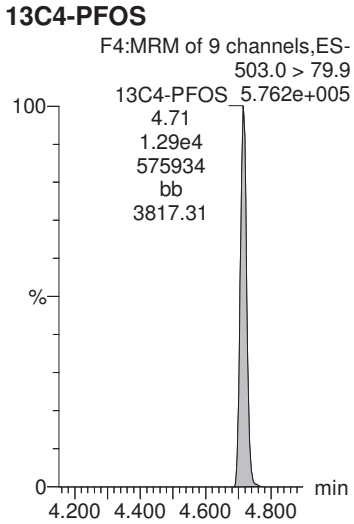
13C2-PFOA



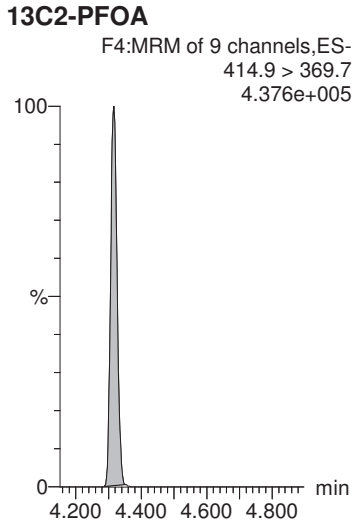
13C2-PFOA



13C4-PFOS



13C2-PFOA



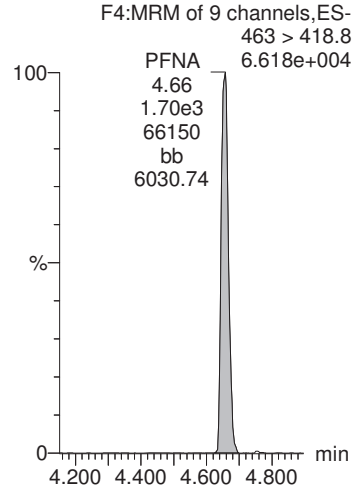
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

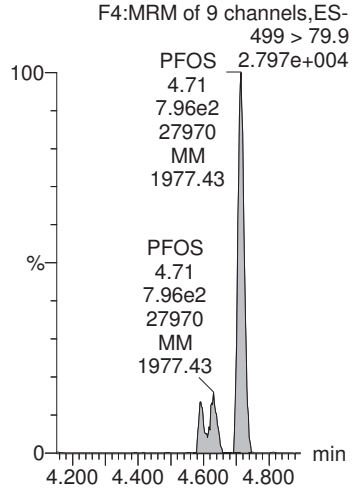
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_4, Date: 25-Jan-2018, Time: 15:58:05, ID: ST180125G3-3 PFC CS-1 537 18A2512, Description: PFC CS-1 537 18A2512

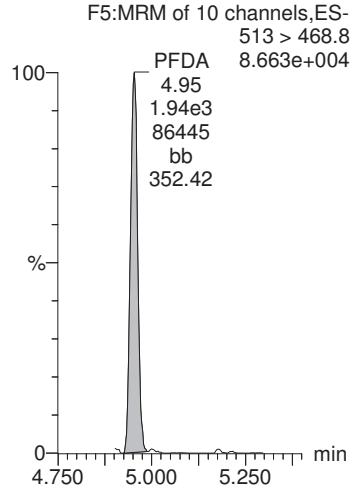
PFNA



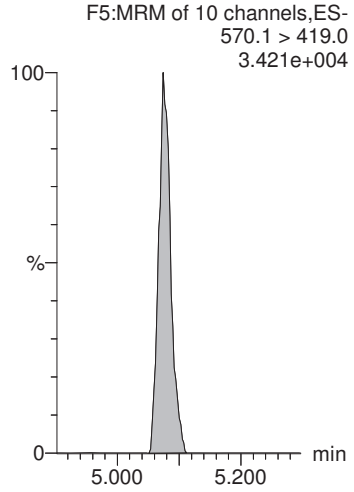
PFOS



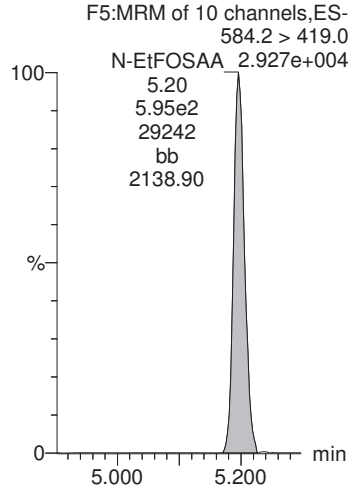
PFDA



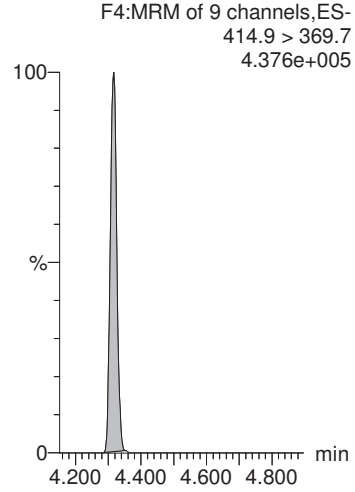
N-MeFOSAA



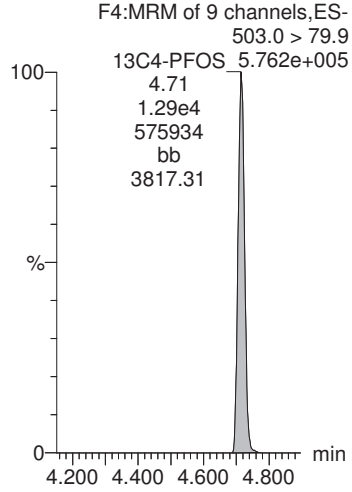
N-EtFOSAA



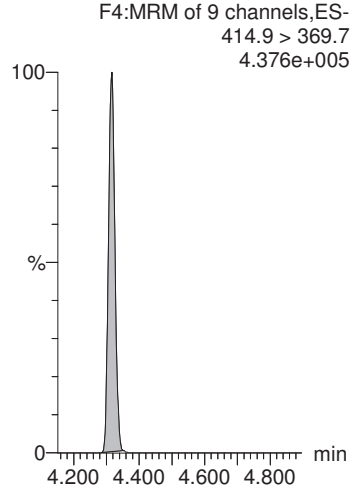
13C2-PFOA



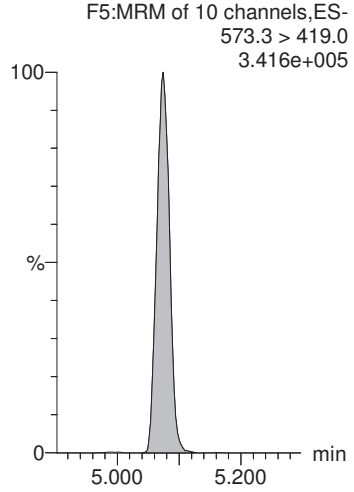
13C4-PFOS



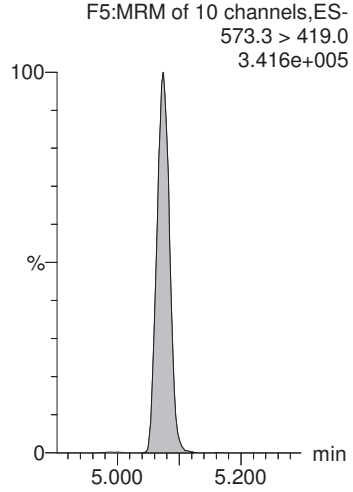
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



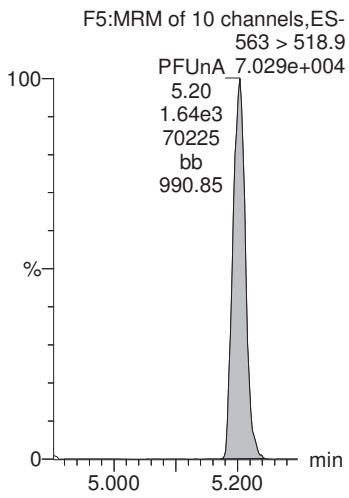
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

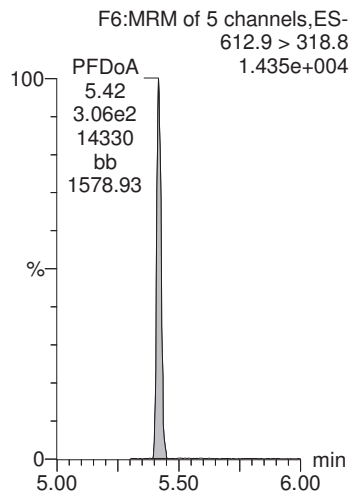
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_4, Date: 25-Jan-2018, Time: 15:58:05, ID: ST180125G3-3 PFC CS-1 537 18A2512, Description: PFC CS-1 537 18A2512

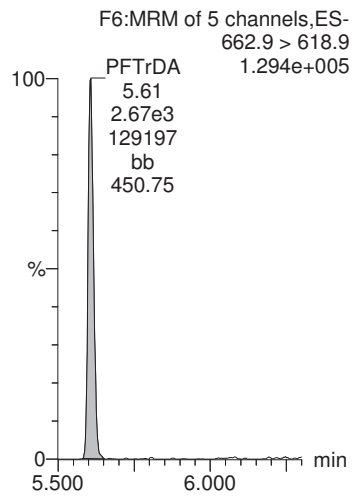
PFUnA



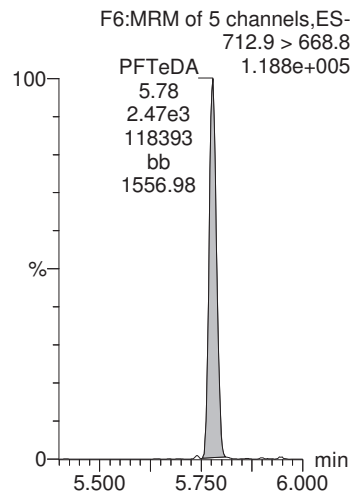
PFDoA



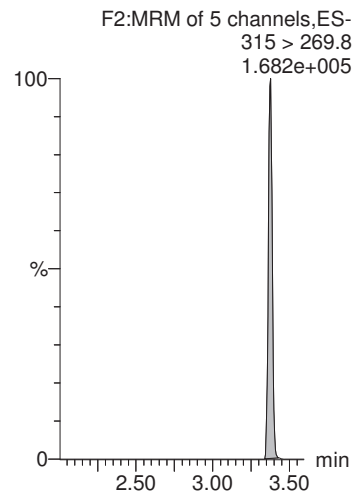
PFTrDA



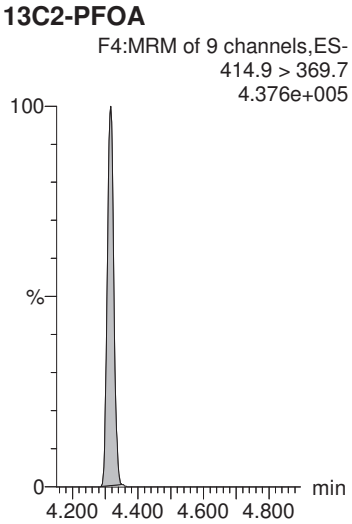
PFTeDA



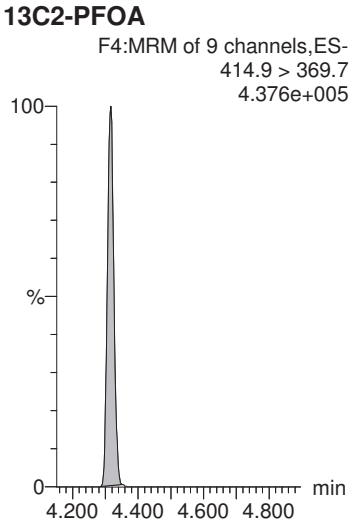
13C2-PFHxA



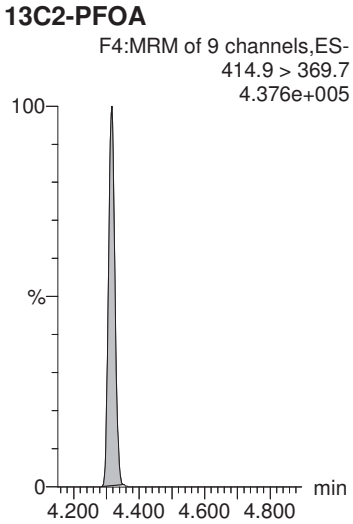
13C2-PFOA



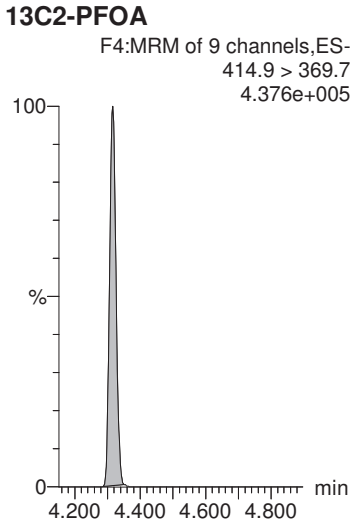
13C2-PFOA



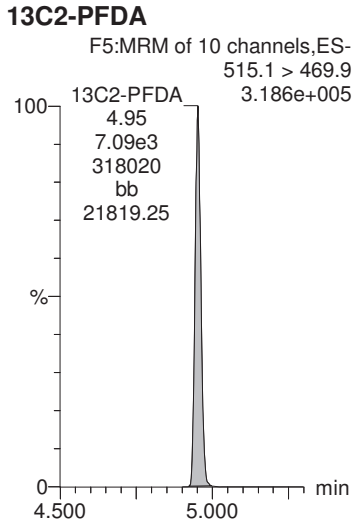
13C2-PFOA



13C2-PFOA



13C2-PFDA



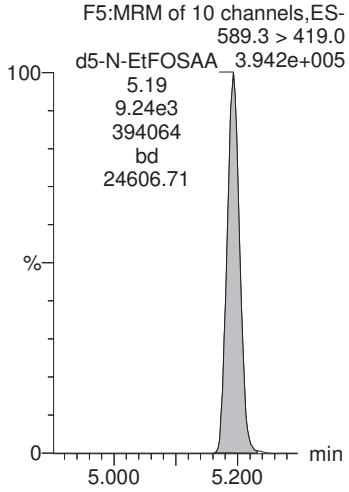
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_4, Date: 25-Jan-2018, Time: 15:58:05, ID: ST180125G3-3 PFC CS-1 537 18A2512, Description: PFC CS-1 537 18A2512

d5-N-EtFOSAA



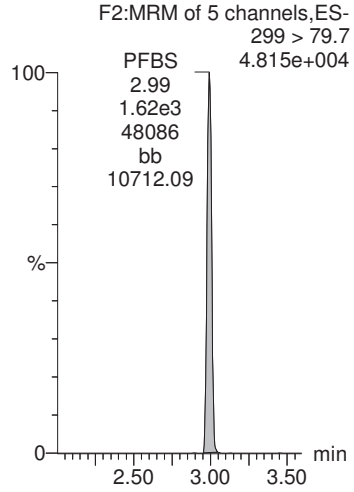
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

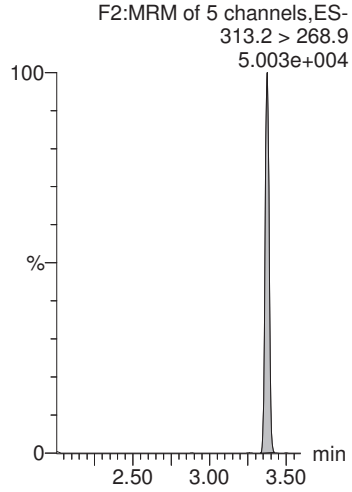
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_5, Date: 25-Jan-2018, Time: 16:10:30, ID: ST180125G3-4 PFC CS0 537 18A2410, Description: PFC CS0 537 18A2410

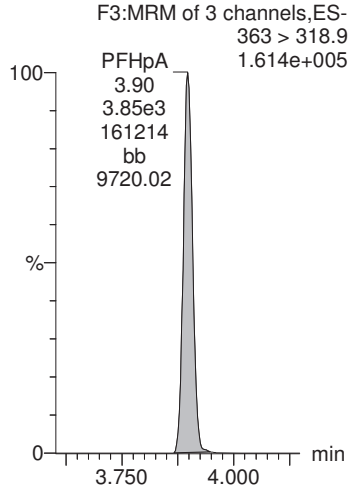
PFBS



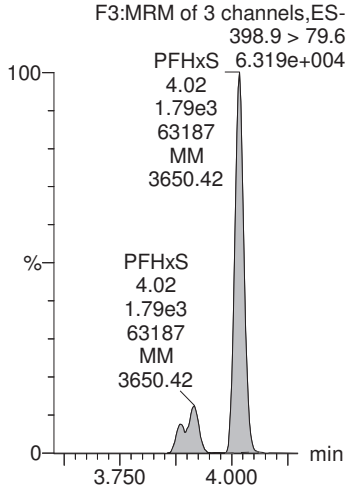
PFHxA



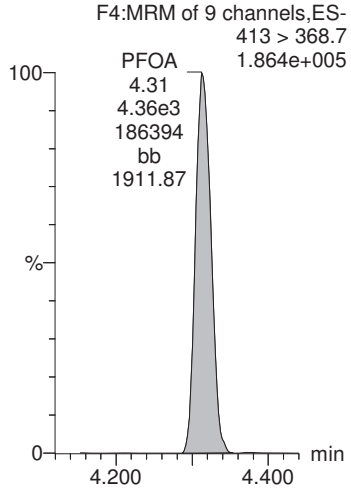
PFHpA



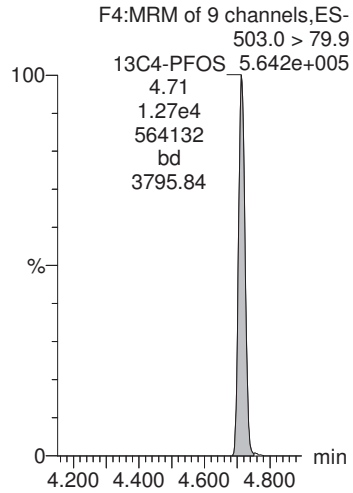
PFHxS



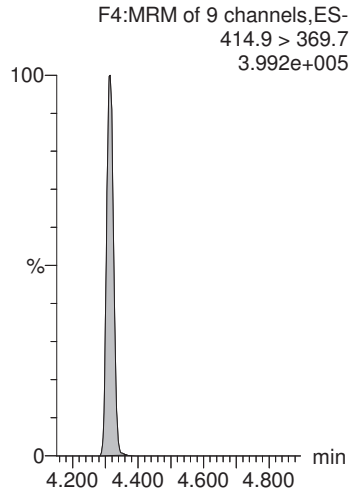
PFOA



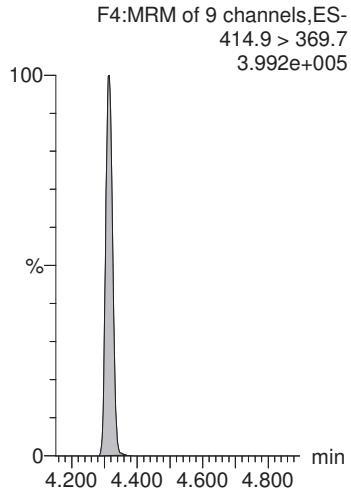
13C4-PFOS



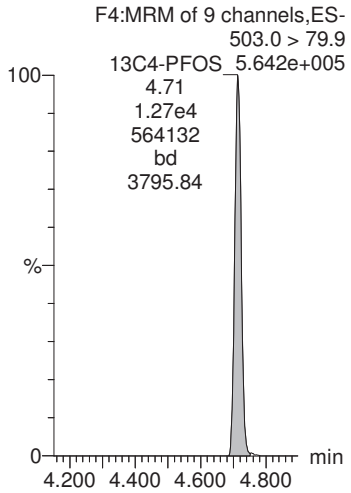
13C2-PFOA



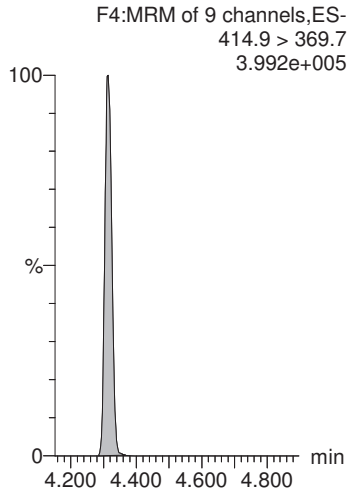
13C2-PFOA



13C4-PFOS



13C2-PFOA



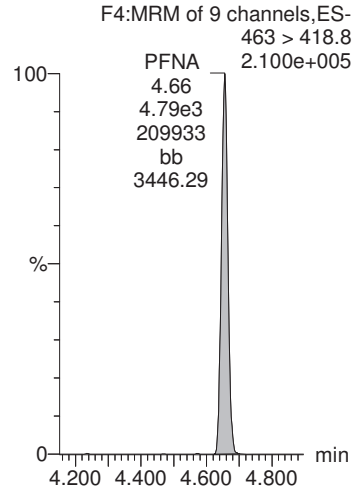
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

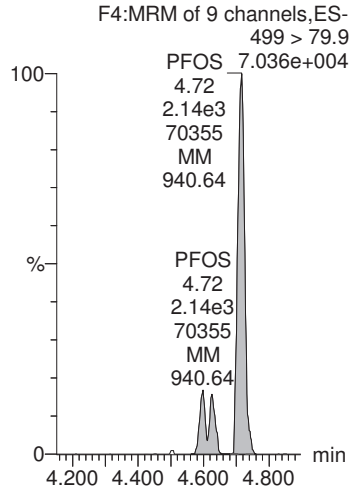
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_5, Date: 25-Jan-2018, Time: 16:10:30, ID: ST180125G3-4 PFC CS0 537 18A2410, Description: PFC CS0 537 18A2410

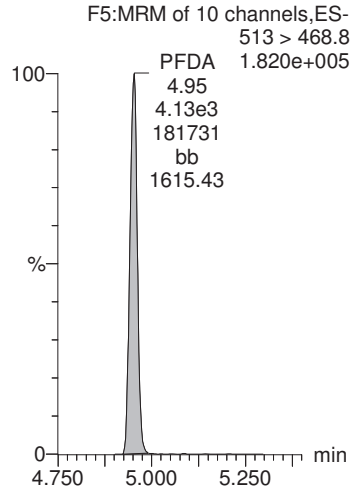
PFNA



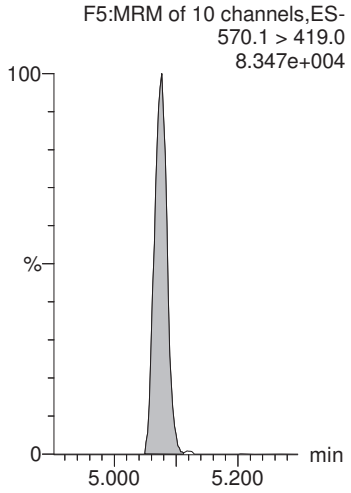
PFOS



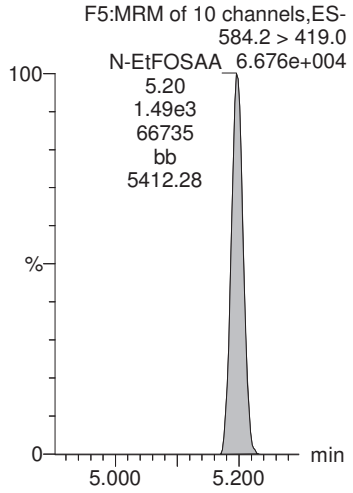
PFDA



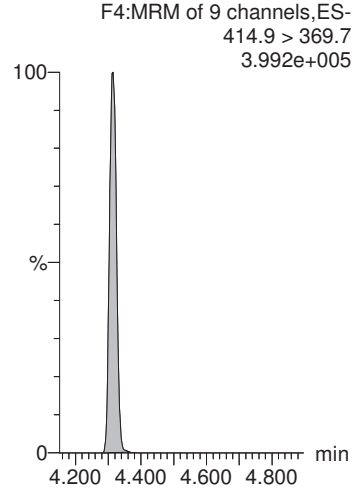
N-MeFOSAA



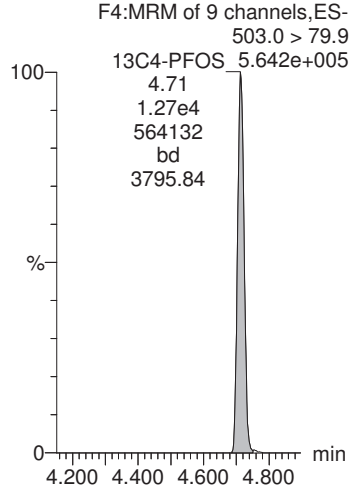
N-EtFOSAA



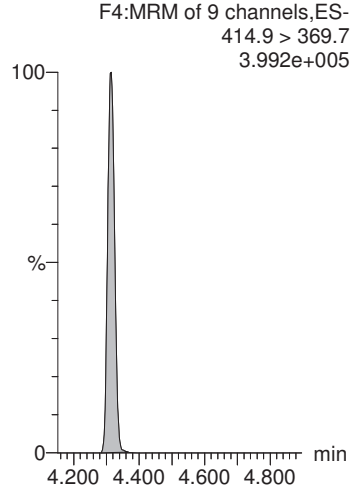
13C2-PFOA



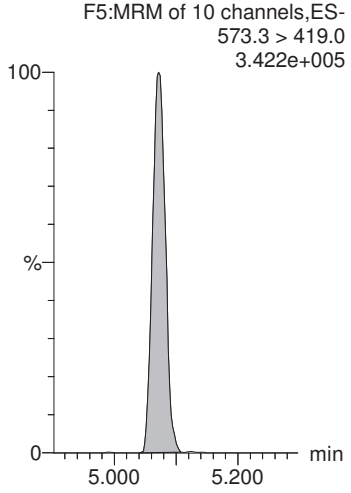
13C4-PFOS



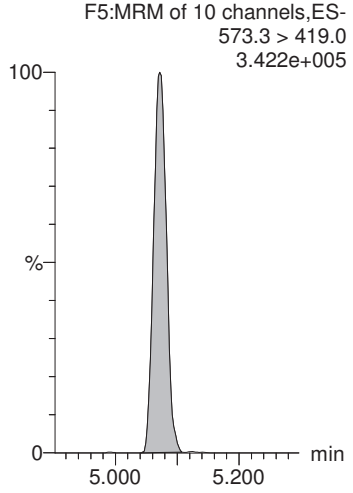
13C2-PFOA



d3-N-MeFOSAA



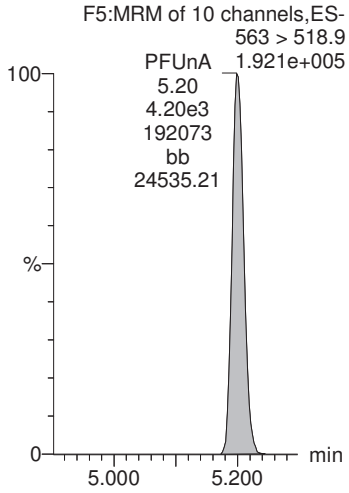
d3-N-MeFOSAA



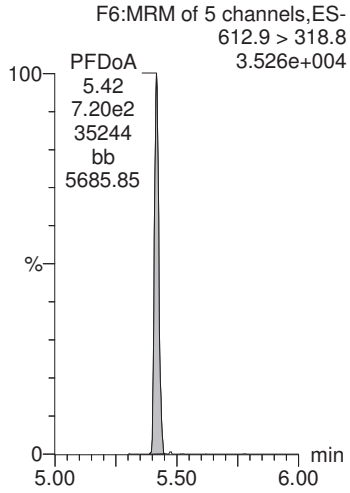
MJT 1/26/2018

Name: 180125G3_5, Date: 25-Jan-2018, Time: 16:10:30, ID: ST180125G3-4 PFC CS0 537 18A2410, Description: PFC CS0 537 18A2410

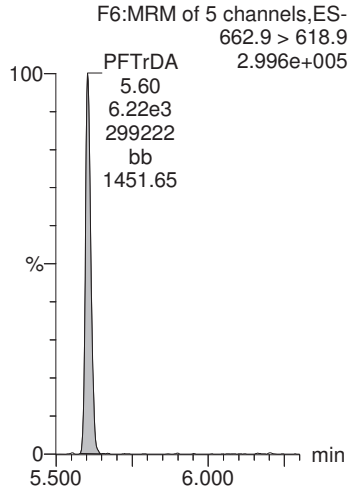
PFUnA



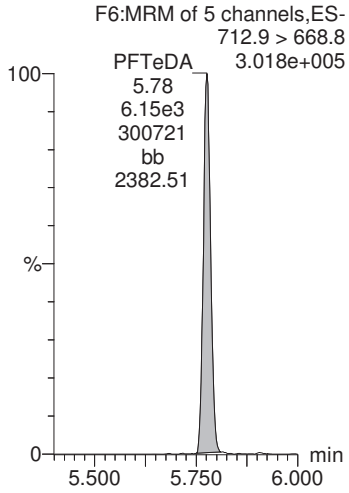
PFDoA



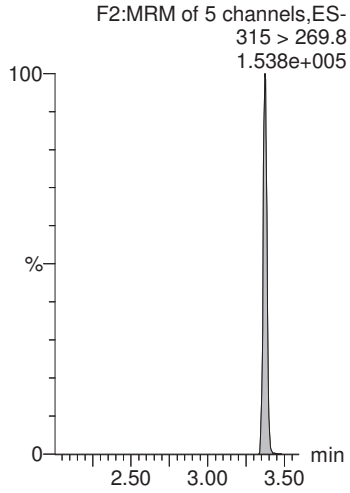
PFTrDA



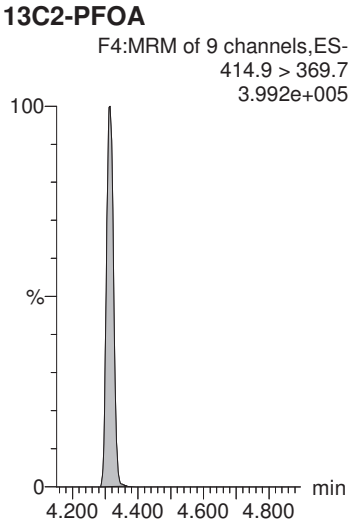
PFTeDA



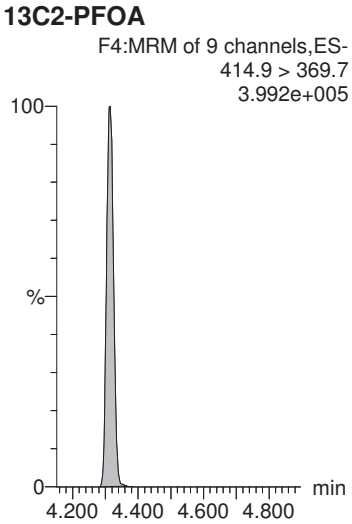
13C2-PFHxA



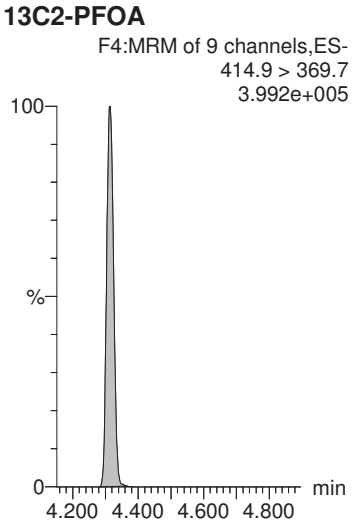
13C2-PFOA



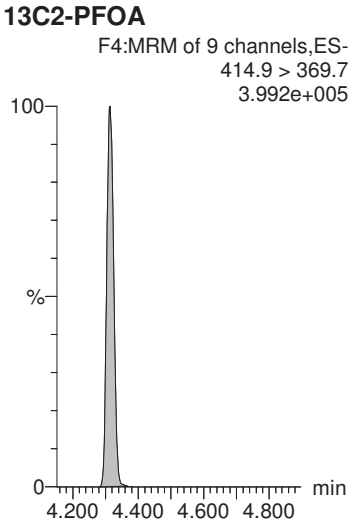
13C2-PFOA



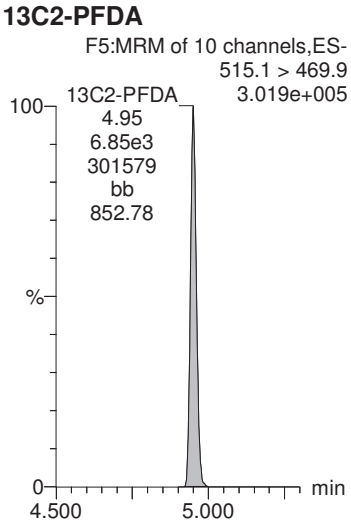
13C2-PFOA



13C2-PFOA



13C2-PFDA



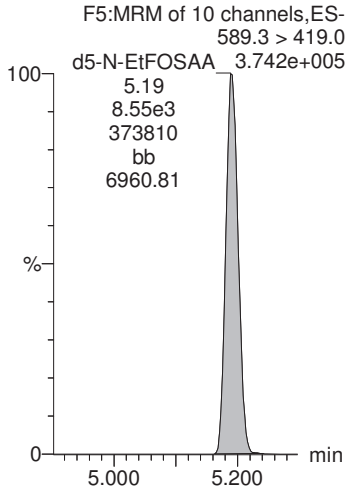
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_5, Date: 25-Jan-2018, Time: 16:10:30, ID: ST180125G3-4 PFC CS0 537 18A2410, Description: PFC CS0 537 18A2410

d5-N-EtFOSAA



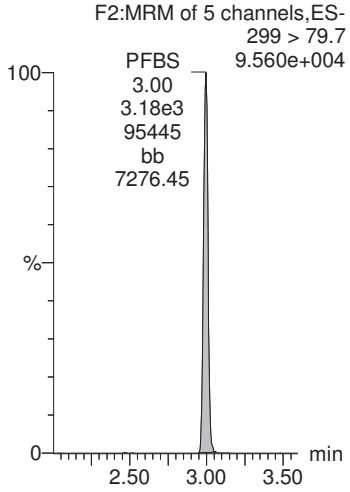
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

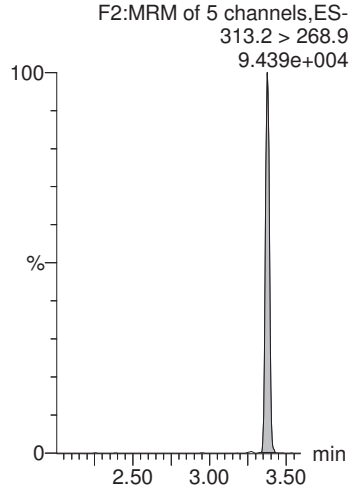
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_6, Date: 25-Jan-2018, Time: 16:22:55, ID: ST180125G3-5 PFC CS1 537 18A2411, Description: PFC CS1 537 18A2411

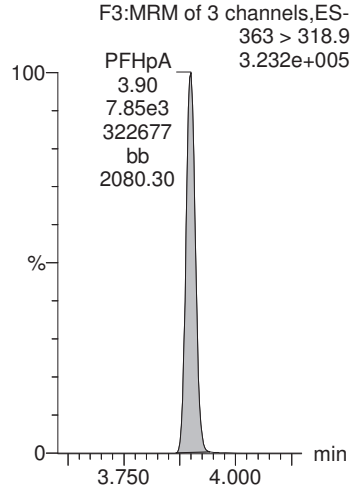
PFBS



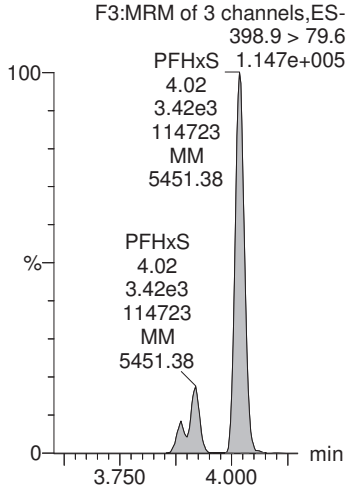
PFHxA



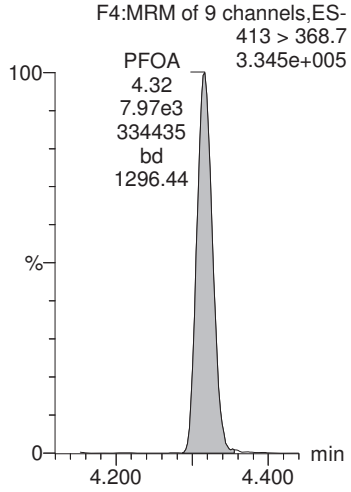
PFHpA



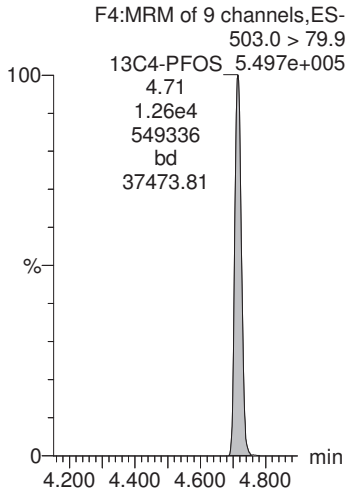
PFHxS



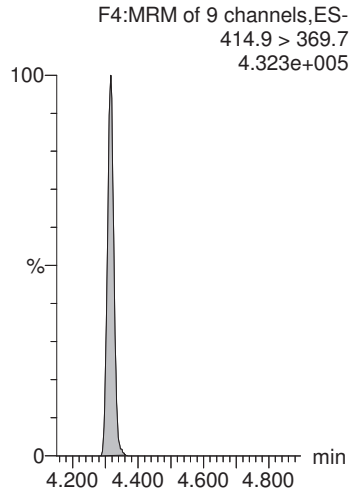
PFOA



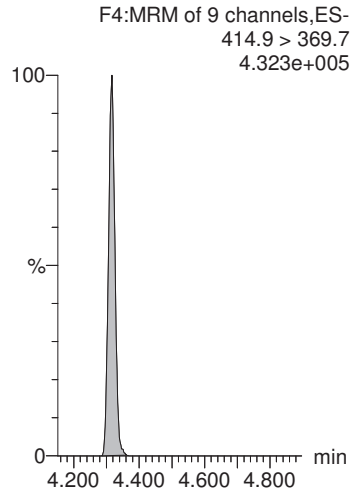
13C4-PFOS



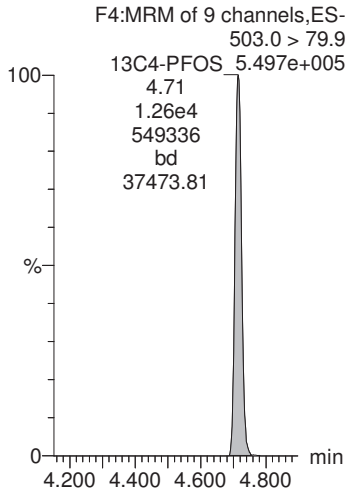
13C2-PFOA



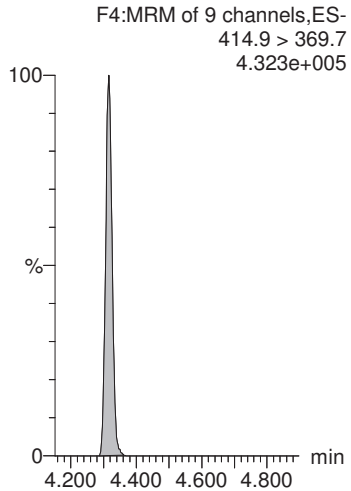
13C2-PFOA



13C4-PFOS



13C2-PFOA



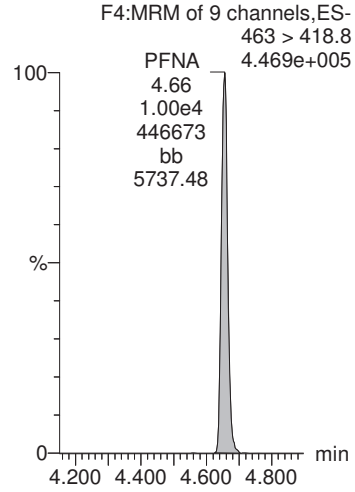
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

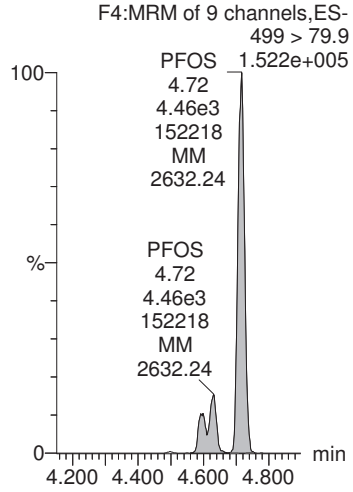
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_6, Date: 25-Jan-2018, Time: 16:22:55, ID: ST180125G3-5 PFC CS1 537 18A2411, Description: PFC CS1 537 18A2411

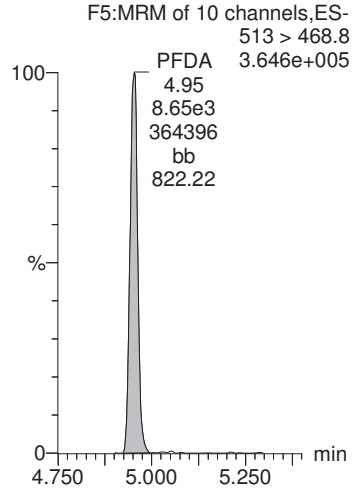
PFNA



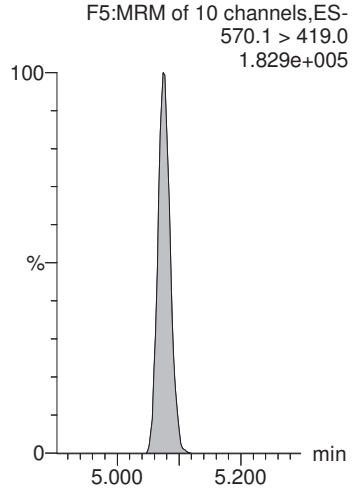
PFOS



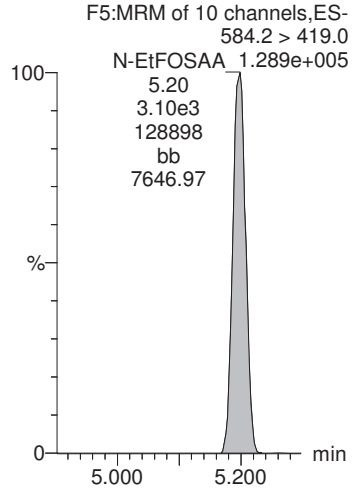
PFDA



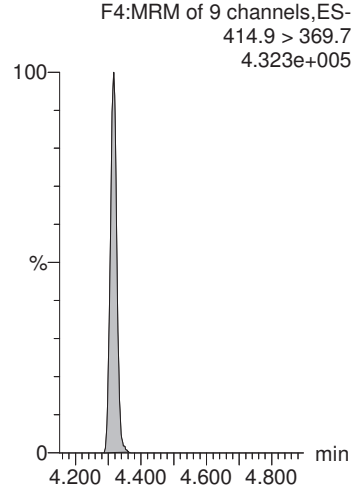
N-MeFOSAA



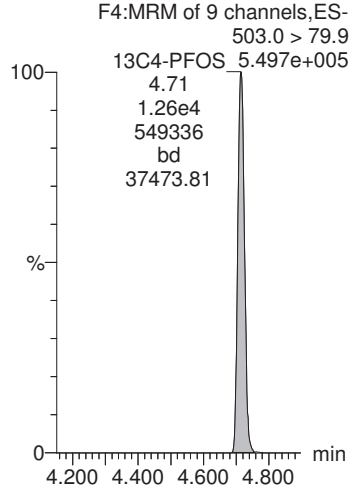
N-EtFOSAA



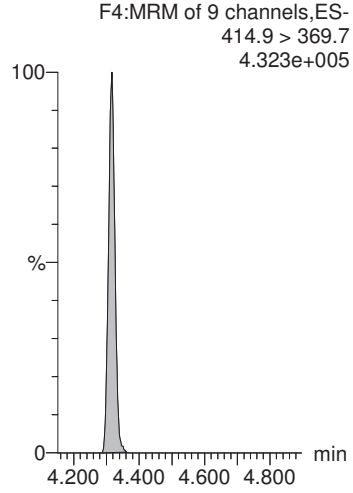
13C2-PFOA



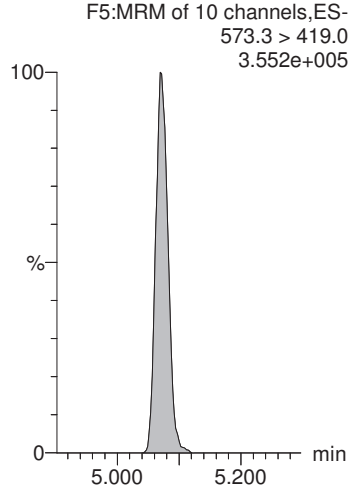
13C4-PFOS



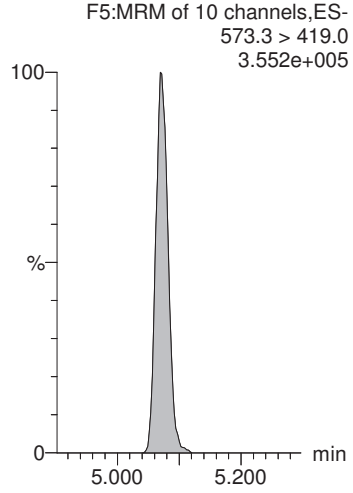
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



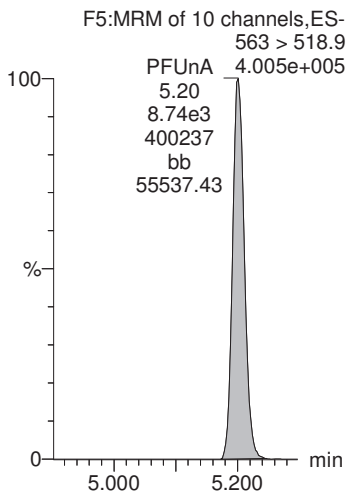
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

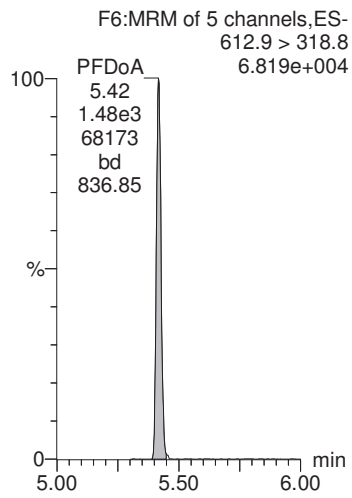
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_6, Date: 25-Jan-2018, Time: 16:22:55, ID: ST180125G3-5 PFC CS1 537 18A2411, Description: PFC CS1 537 18A2411

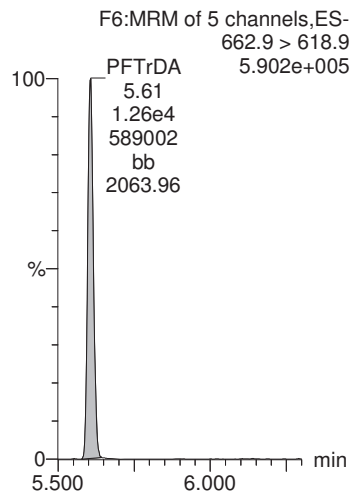
PFUnA



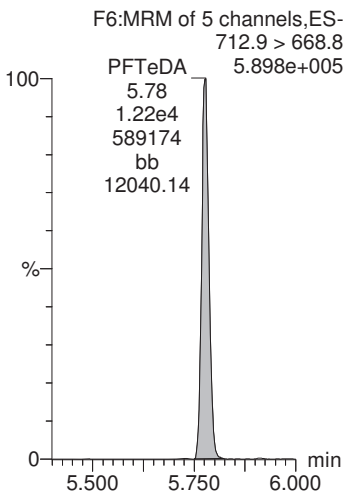
PFDoA



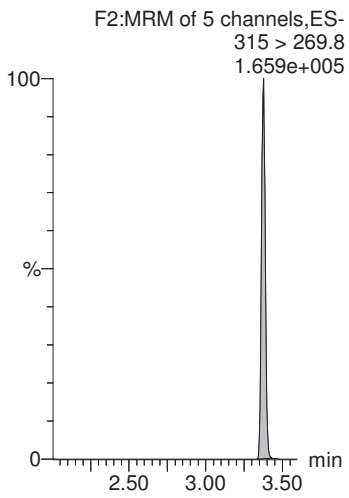
PFTrDA



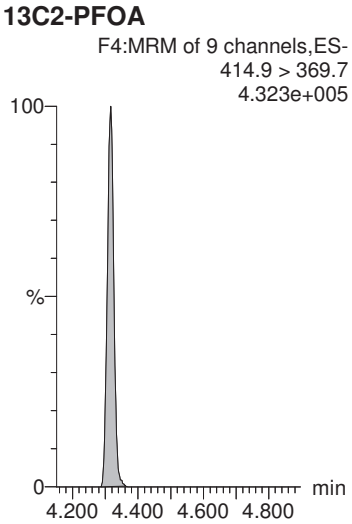
PFTeDA



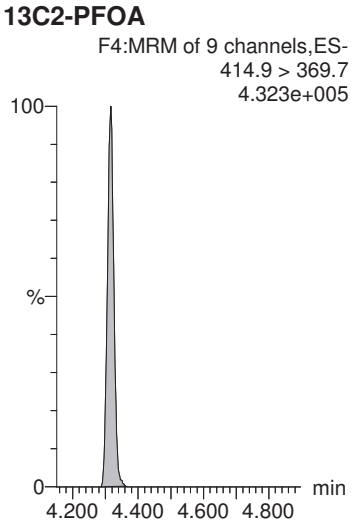
13C2-PFHxA



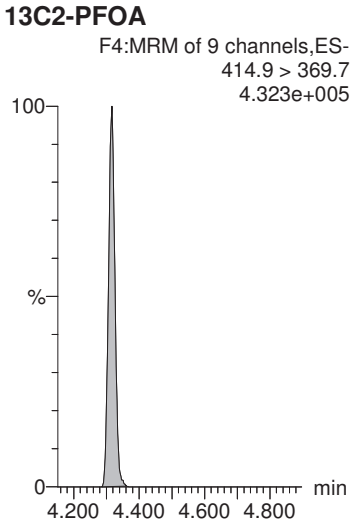
13C2-PFOA



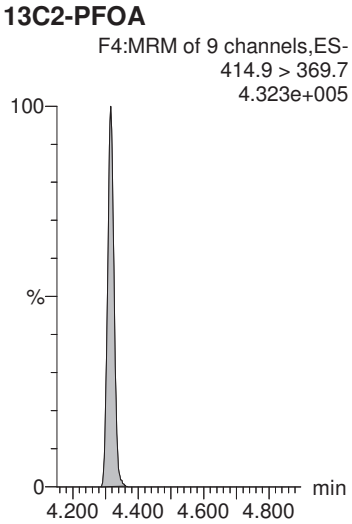
13C2-PFOA



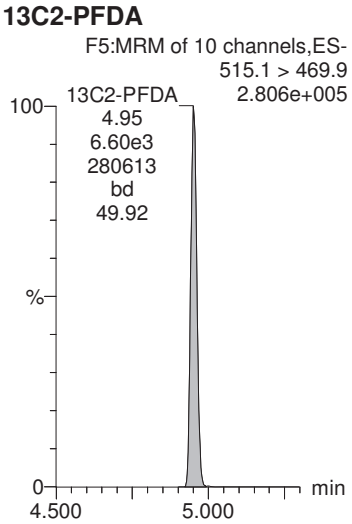
13C2-PFOA



13C2-PFOA



13C2-PFDA



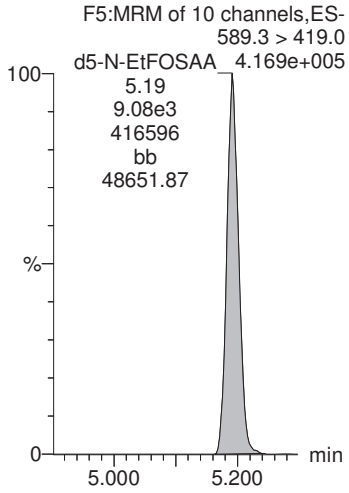
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_6, Date: 25-Jan-2018, Time: 16:22:55, ID: ST180125G3-5 PFC CS1 537 18A2411, Description: PFC CS1 537 18A2411

d5-N-EtFOSAA



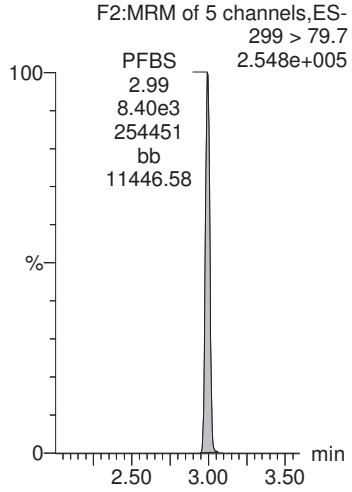
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

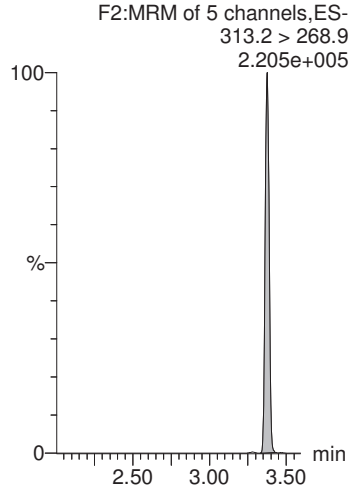
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_7, Date: 25-Jan-2018, Time: 16:35:21, ID: ST180125G3-6 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

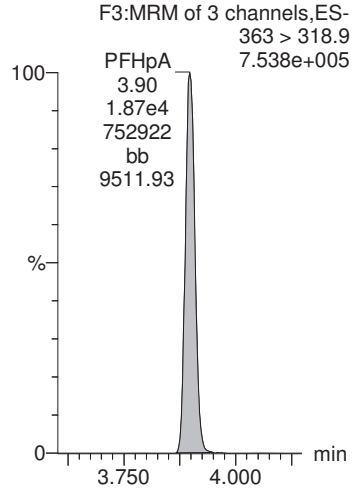
PFBS



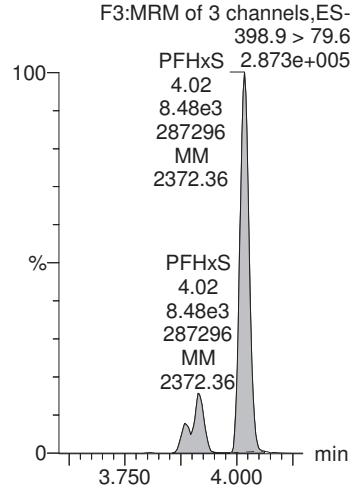
PFHxA



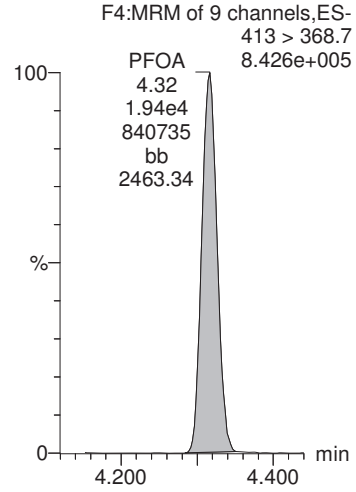
PFHpA



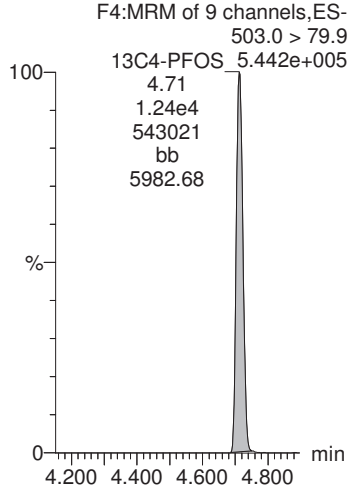
PFHxS



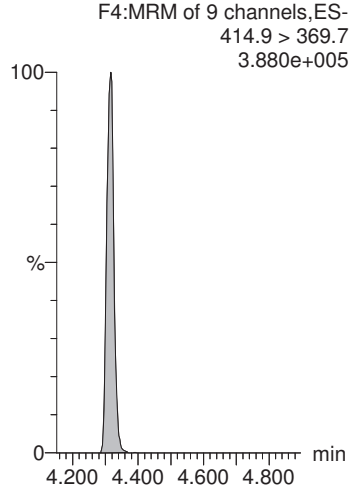
PFOA



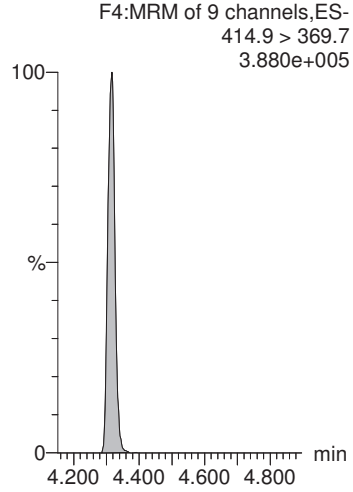
13C4-PFOS



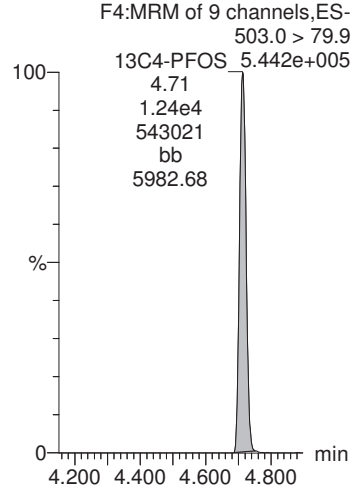
13C2-PFOA



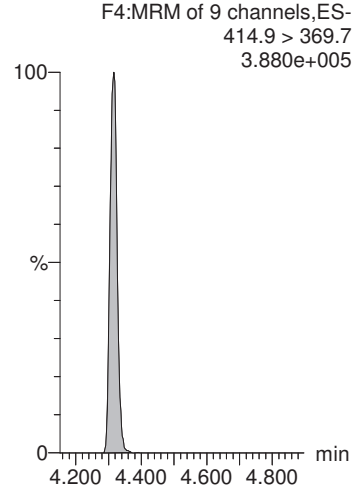
13C2-PFOA



13C4-PFOS



13C2-PFOA



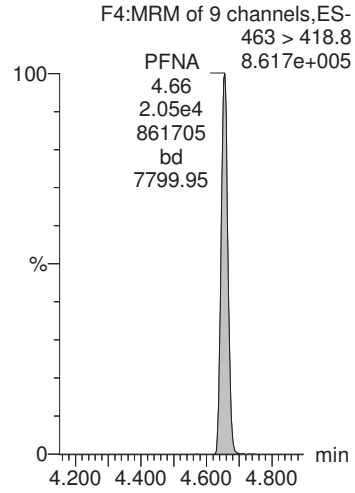
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

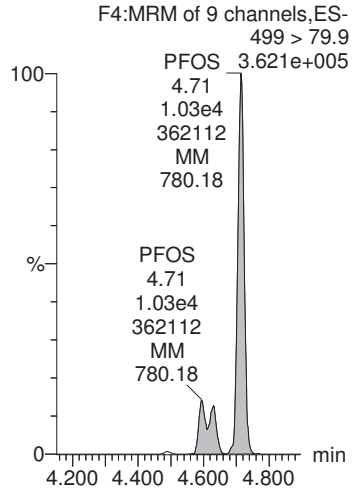
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_7, Date: 25-Jan-2018, Time: 16:35:21, ID: ST180125G3-6 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

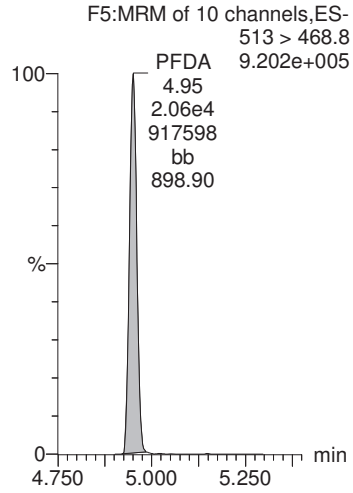
PFNA



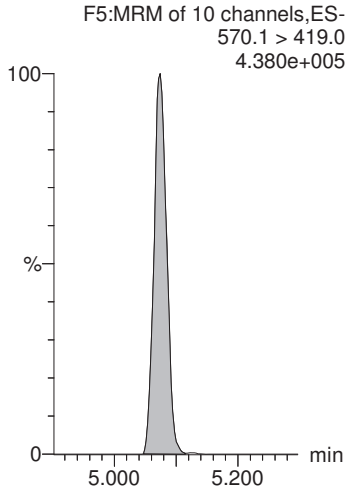
PFOS



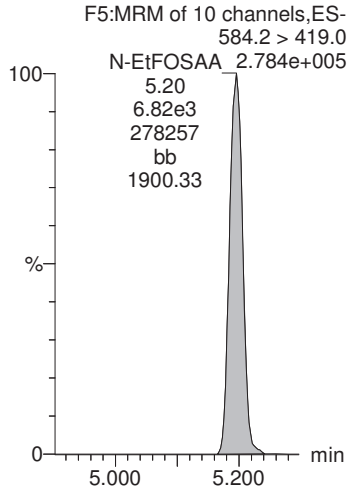
PFDA



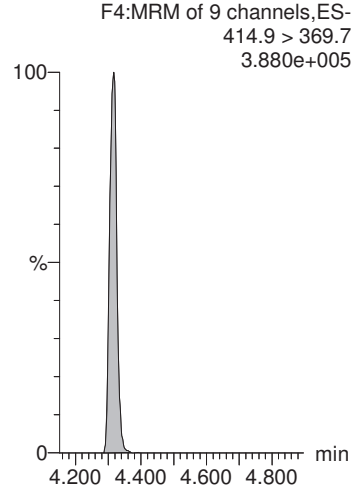
N-MeFOSAA



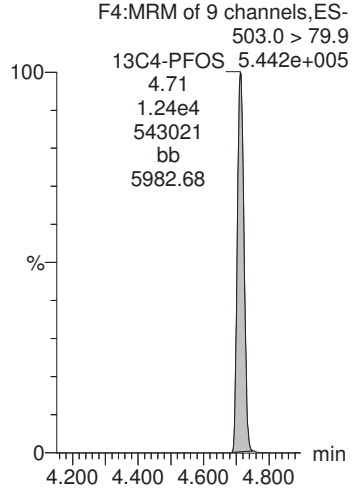
N-EtFOSAA



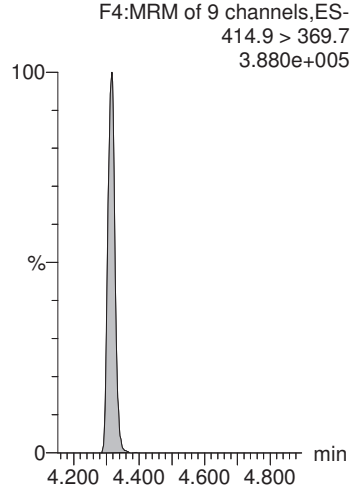
13C2-PFOA



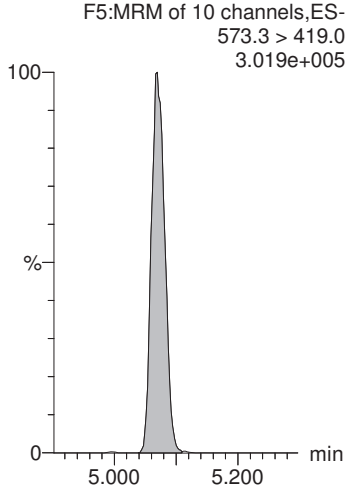
13C4-PFOS



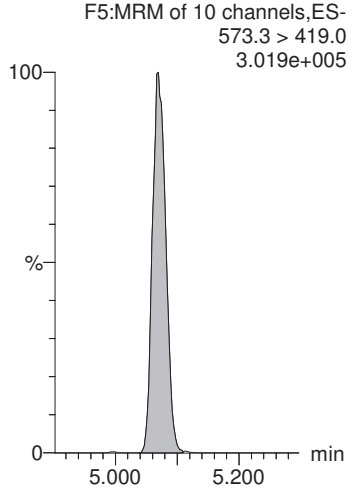
13C2-PFOA



d3-N-MeFOSAA



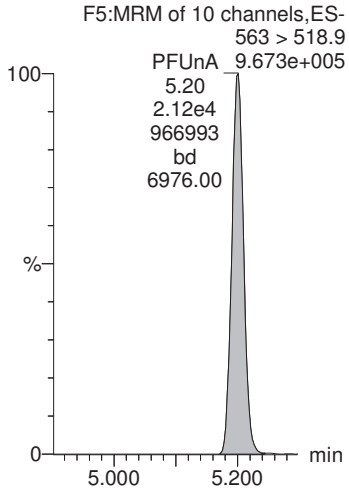
d3-N-MeFOSAA



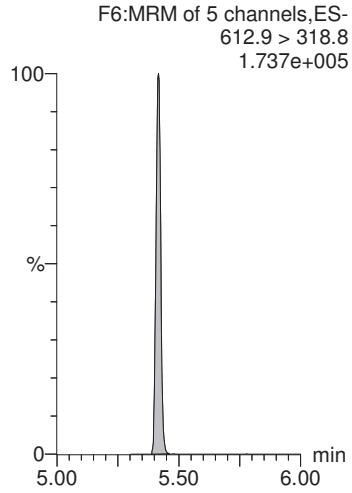
MJT 1/26/2018

Name: 180125G3_7, Date: 25-Jan-2018, Time: 16:35:21, ID: ST180125G3-6 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

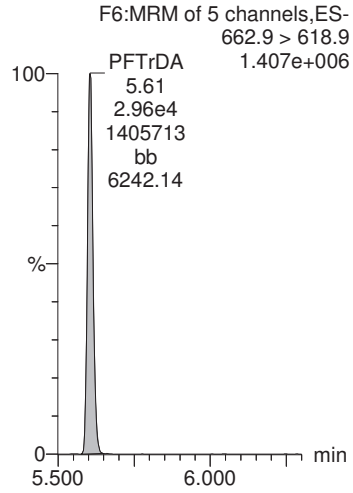
PFUnA



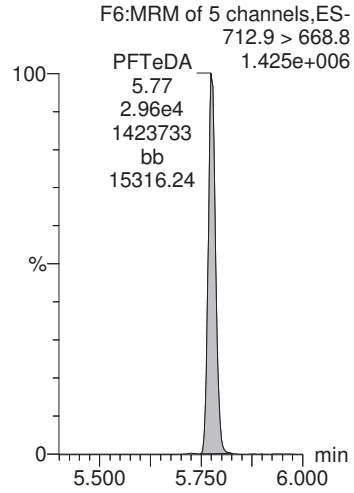
PFDoA



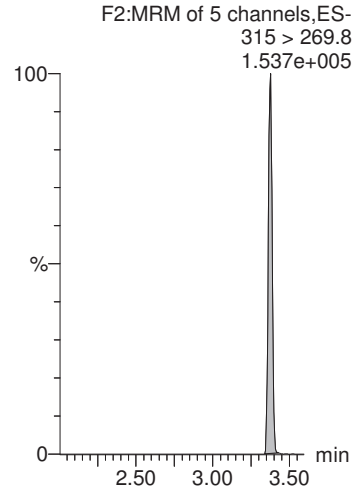
PFTrDA



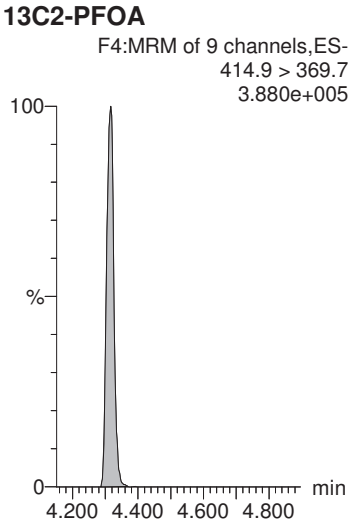
PFTeDA



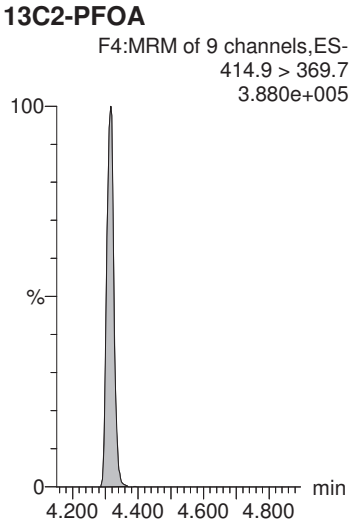
13C2-PFHxA



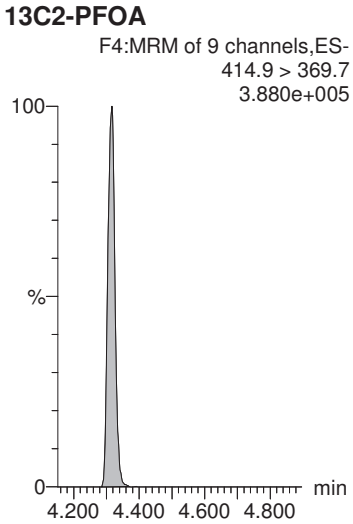
13C2-PFOA



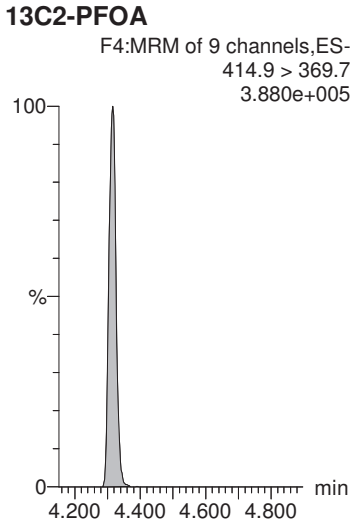
13C2-PFOA



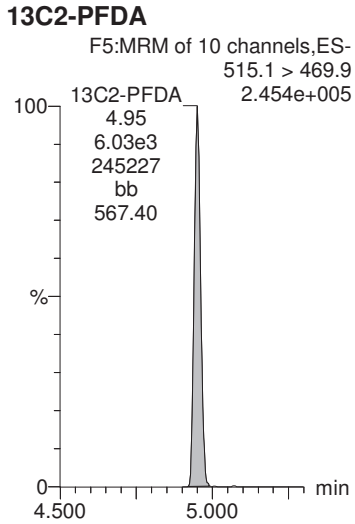
13C2-PFOA



13C2-PFOA



13C2-PFDA



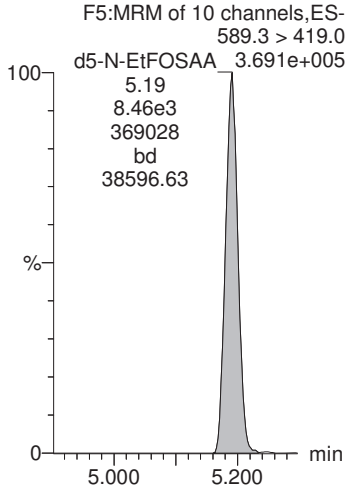
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_7, Date: 25-Jan-2018, Time: 16:35:21, ID: ST180125G3-6 PFC CS2 537 18A2412, Description: PFC CS2 537 18A2412

d5-N-EtFOSAA



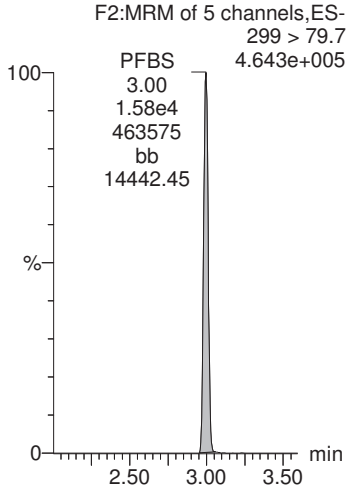
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

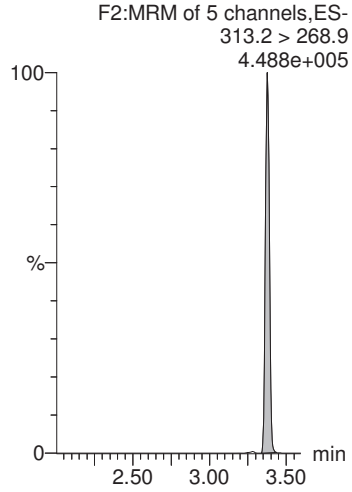
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_8, Date: 25-Jan-2018, Time: 16:48:12, ID: ST180125G3-7 PFC CS3 537 18A2413, Description: PFC CS3 537 18A2413

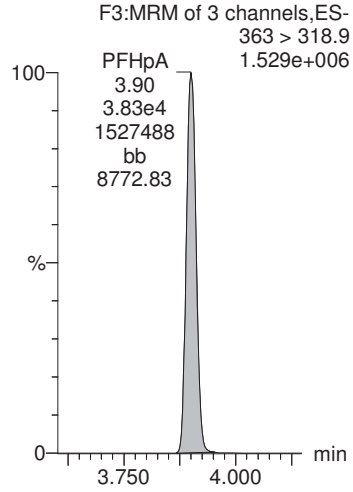
PFBS



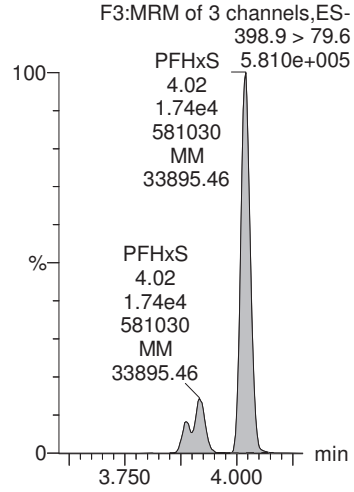
PFHxA



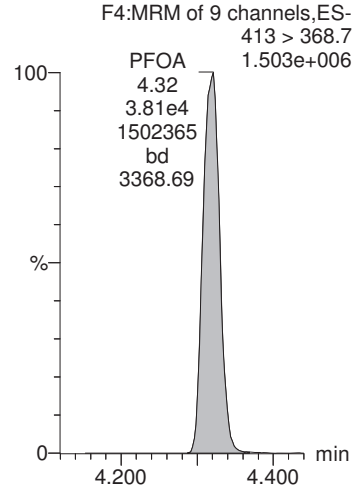
PFHpA



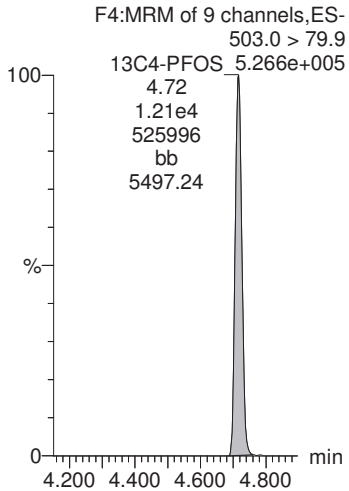
PFHxS



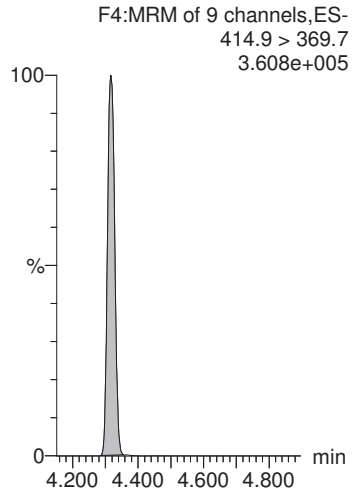
PFOA



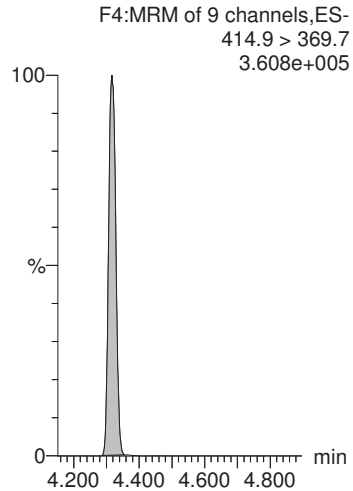
13C4-PFOS



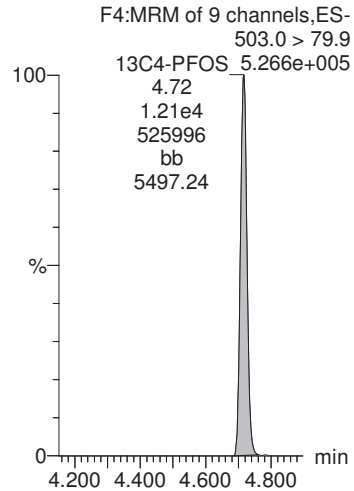
13C2-PFOA



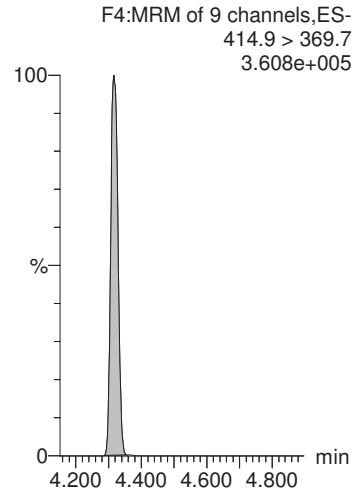
13C2-PFOA



13C4-PFOS



13C2-PFOA



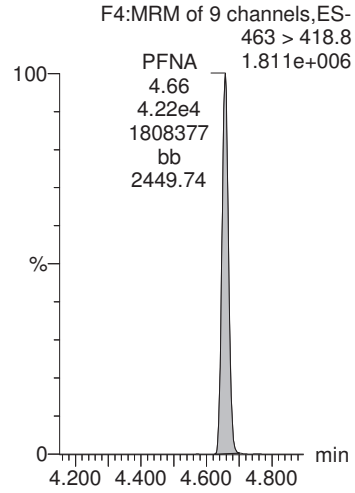
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

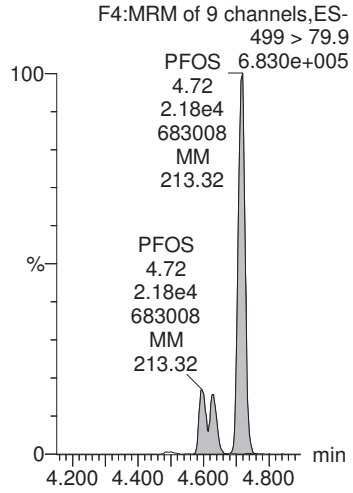
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_8, Date: 25-Jan-2018, Time: 16:48:12, ID: ST180125G3-7 PFC CS3 537 18A2413, Description: PFC CS3 537 18A2413

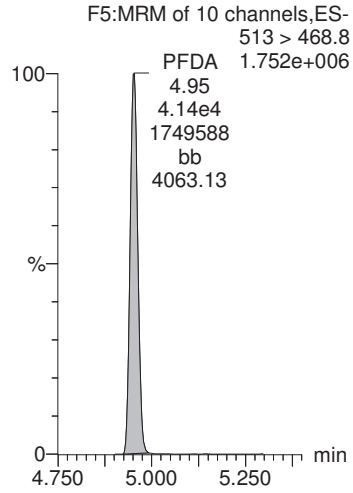
PFNA



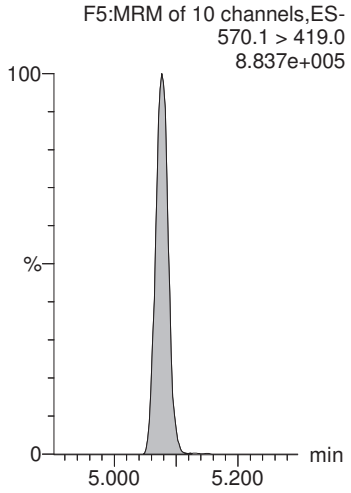
PFOS



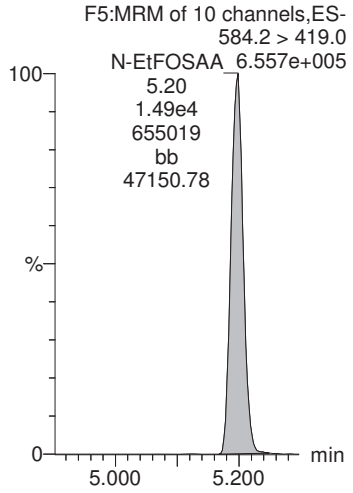
PFDA



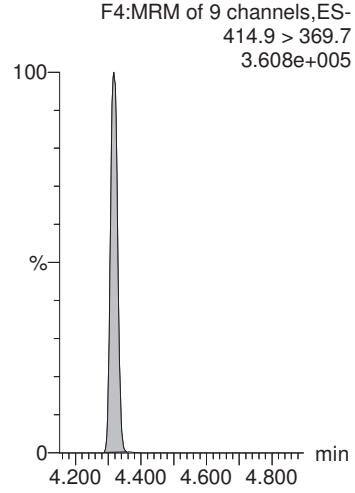
N-MeFOSAA



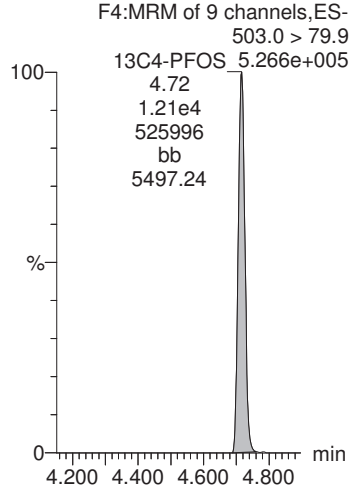
N-EtFOSAA



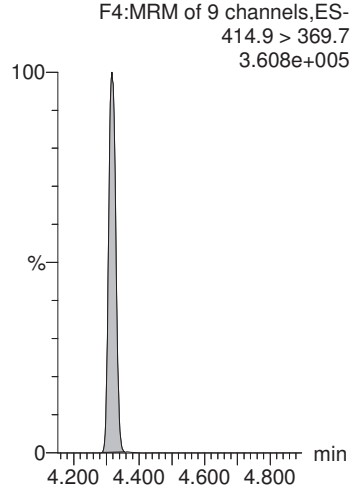
13C2-PFOA



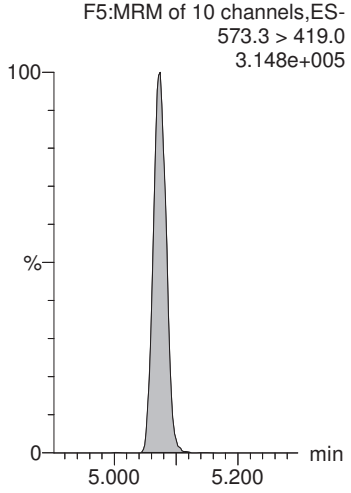
13C4-PFOS



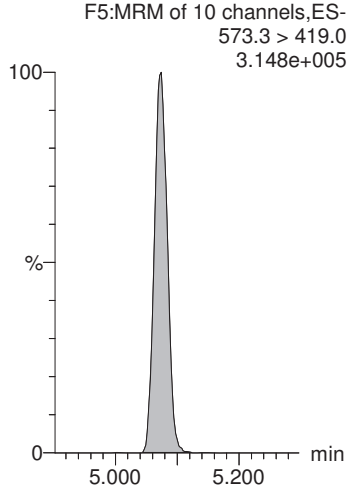
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



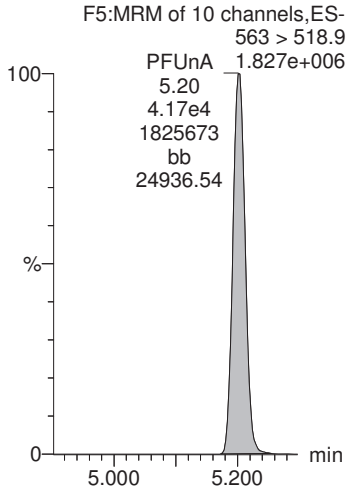
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

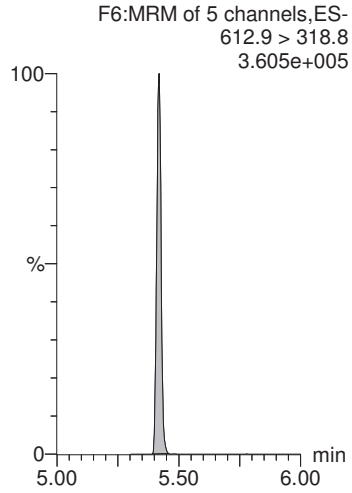
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_8, Date: 25-Jan-2018, Time: 16:48:12, ID: ST180125G3-7 PFC CS3 537 18A2413, Description: PFC CS3 537 18A2413

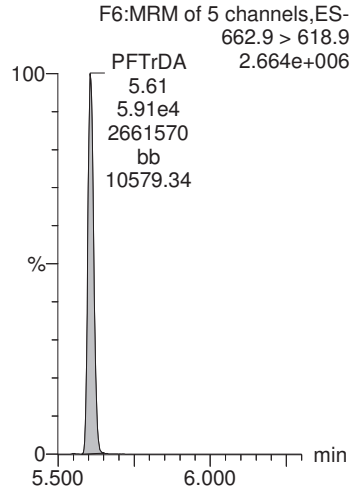
PFUnA



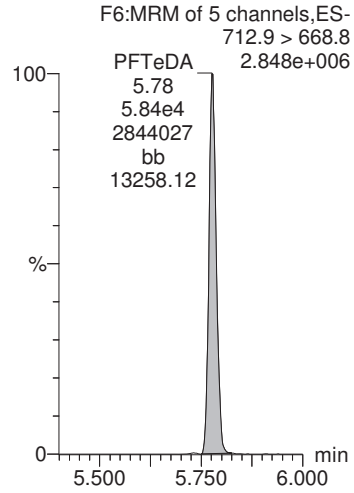
PFDoA



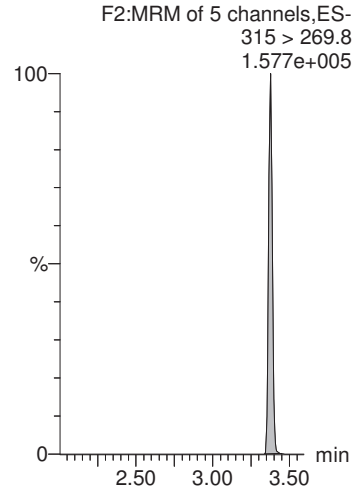
PFTrDA



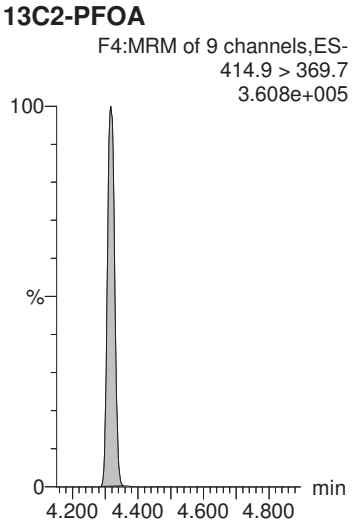
PFTeDA



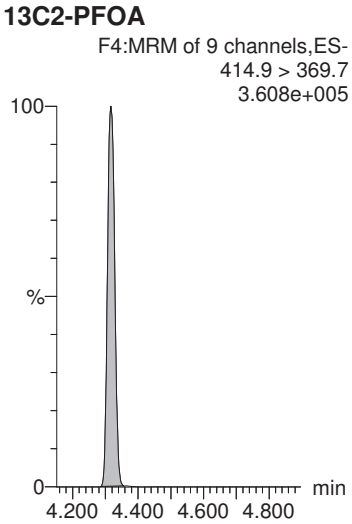
13C2-PFHxA



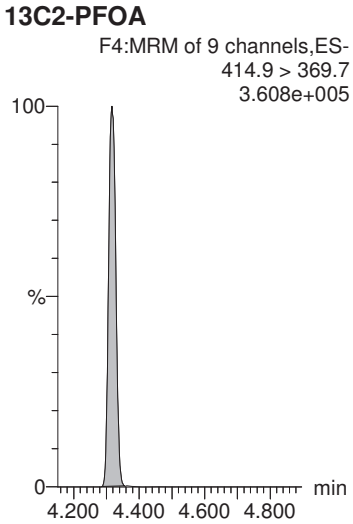
13C2-PFOA



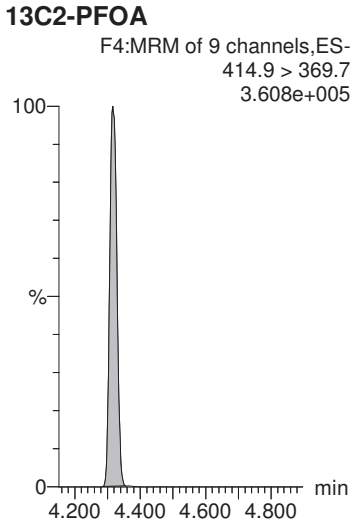
13C2-PFOA



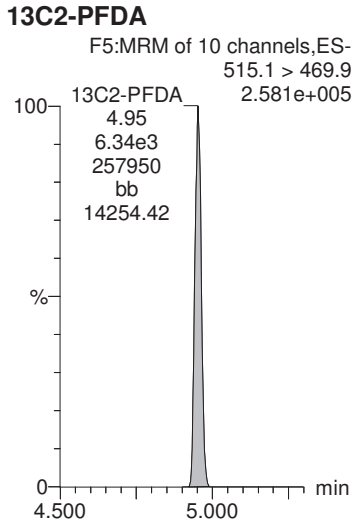
13C2-PFOA



13C2-PFOA



13C2-PFDA



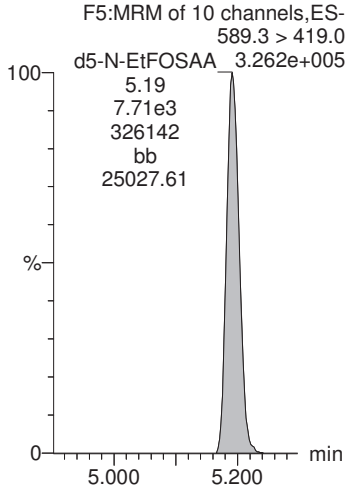
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_8, Date: 25-Jan-2018, Time: 16:48:12, ID: ST180125G3-7 PFC CS3 537 18A2413, Description: PFC CS3 537 18A2413

d5-N-EtFOSAA



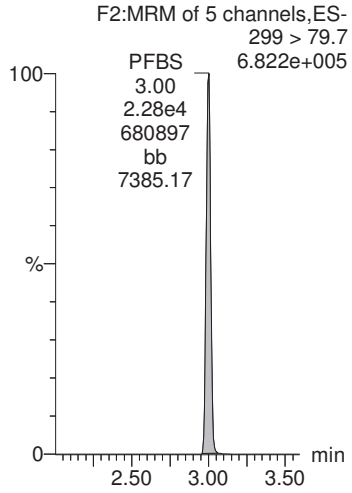
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

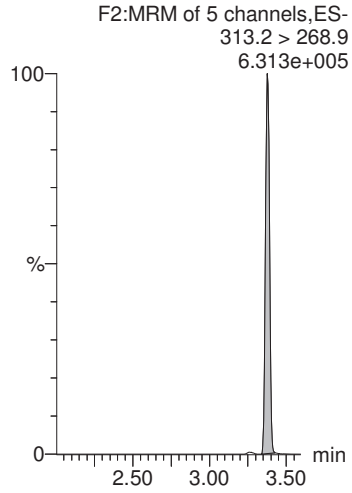
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_9, Date: 25-Jan-2018, Time: 17:01:00, ID: ST180125G3-8 PFC CS4 537 18A2414, Description: PFC CS4 537 18A2414

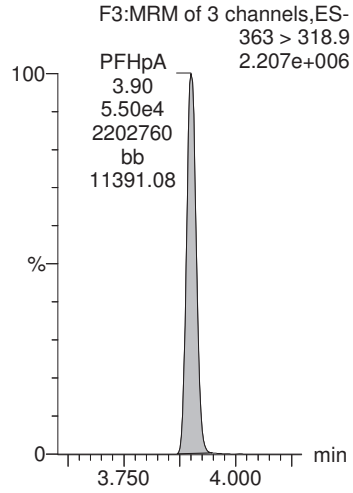
PFBS



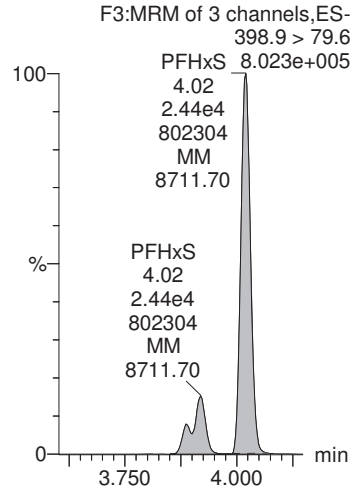
PFHxA



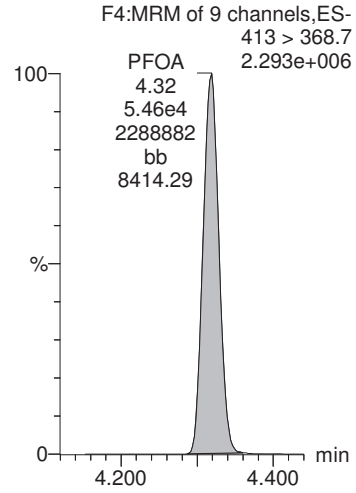
PFHpA



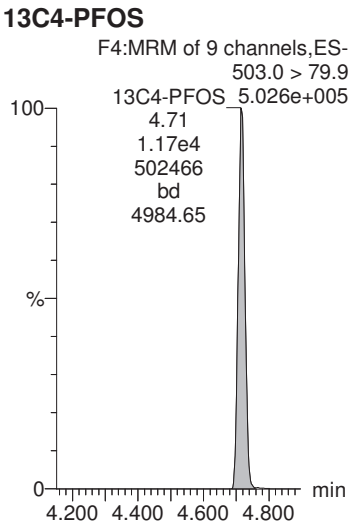
PFHxS



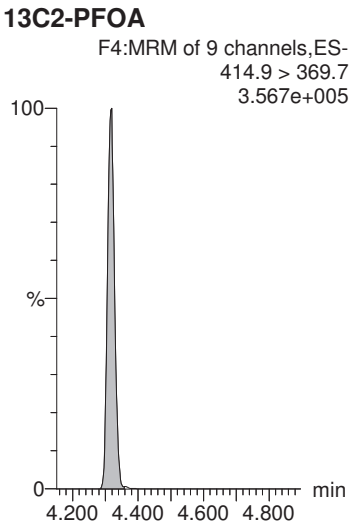
PFOA



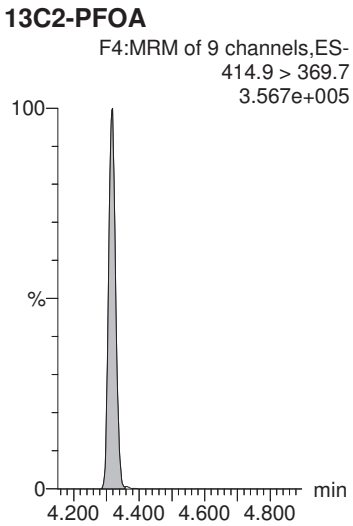
13C4-PFOS



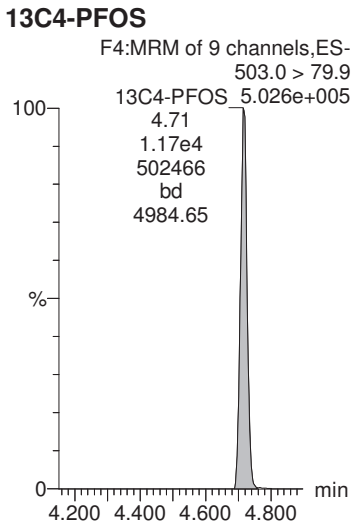
13C2-PFOA



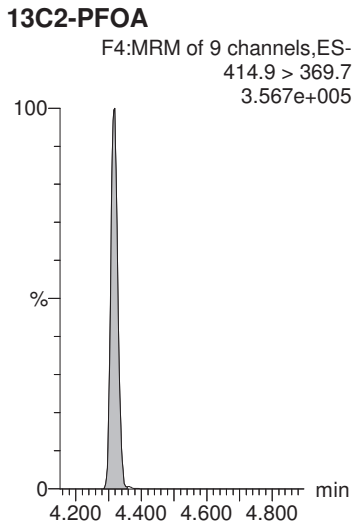
13C2-PFOA



13C4-PFOS



13C2-PFOA



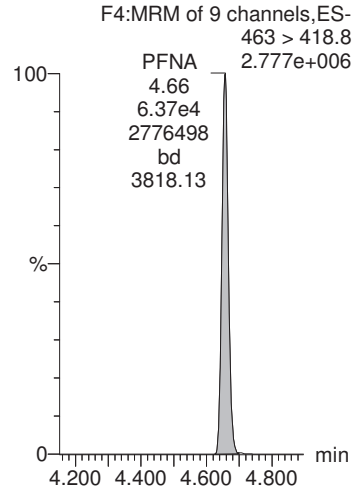
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

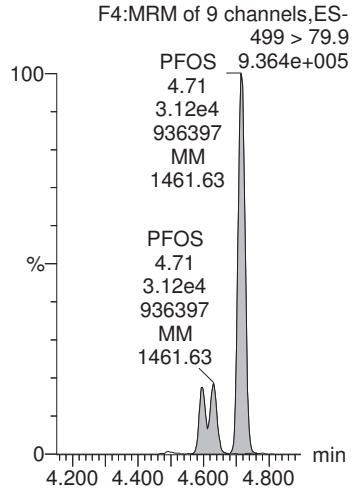
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_9, Date: 25-Jan-2018, Time: 17:01:00, ID: ST180125G3-8 PFC CS4 537 18A2414, Description: PFC CS4 537 18A2414

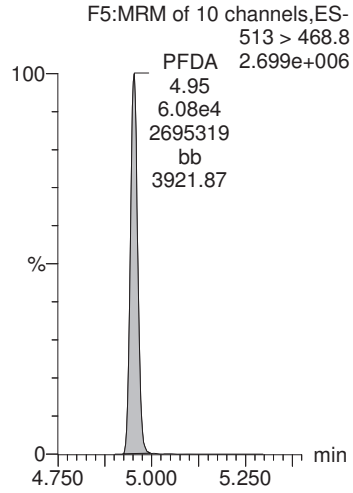
PFNA



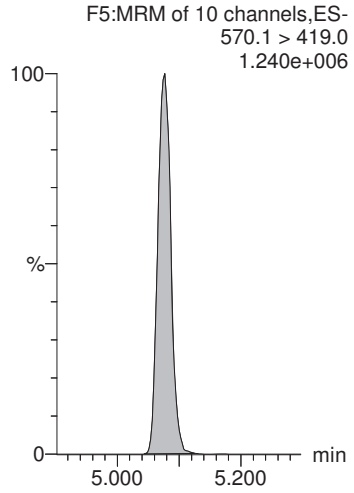
PFOS



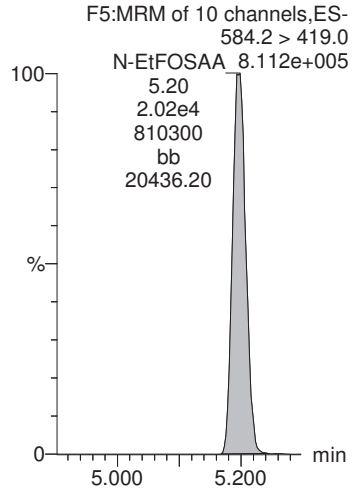
PFDA



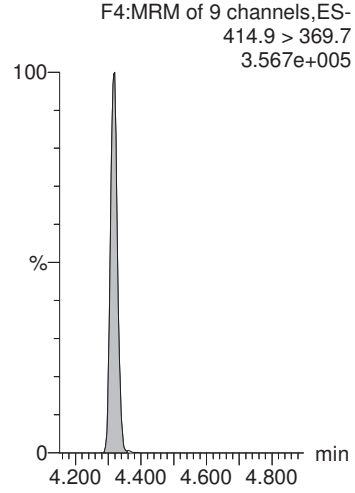
N-MeFOSAA



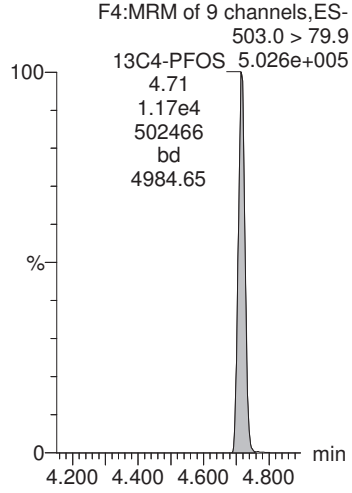
N-EtFOSAA



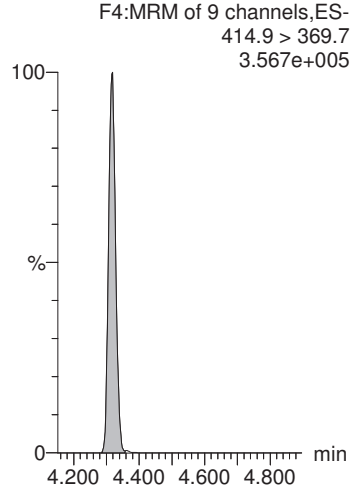
13C2-PFOA



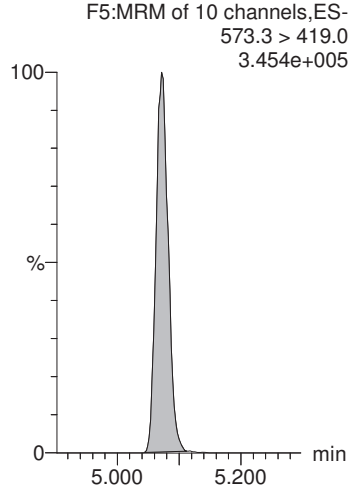
13C4-PFOS



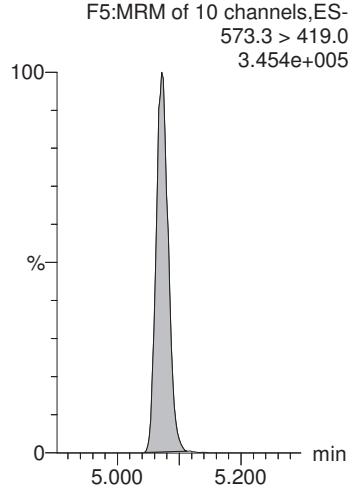
13C2-PFOA



d3-N-MeFOSAA



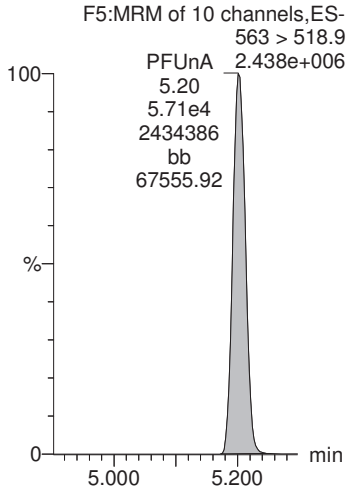
d3-N-MeFOSAA



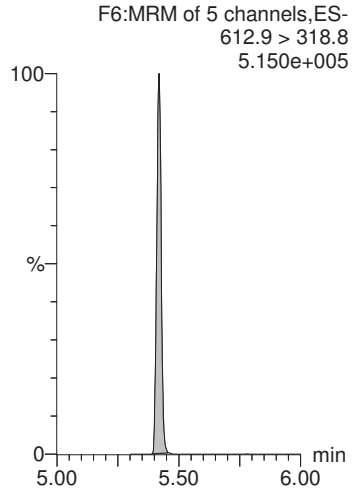
MJT 1/26/2018

Name: 180125G3_9, Date: 25-Jan-2018, Time: 17:01:00, ID: ST180125G3-8 PFC CS4 537 18A2414, Description: PFC CS4 537 18A2414

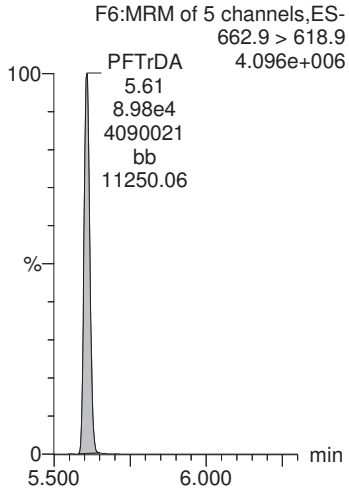
PFUnA



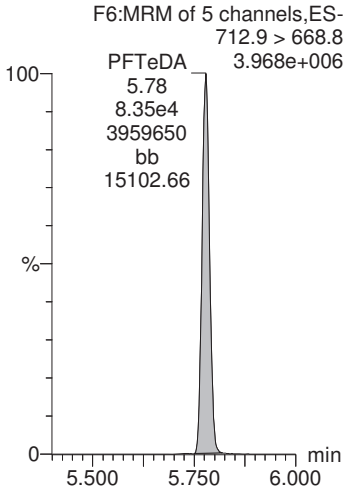
PFDoA



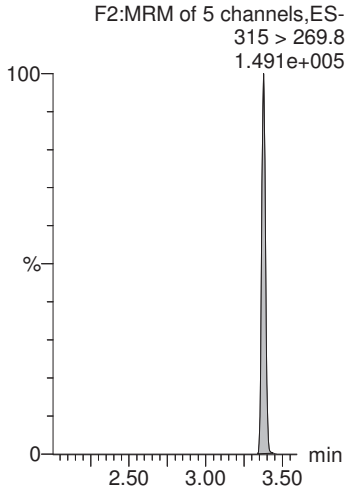
PFTrDA



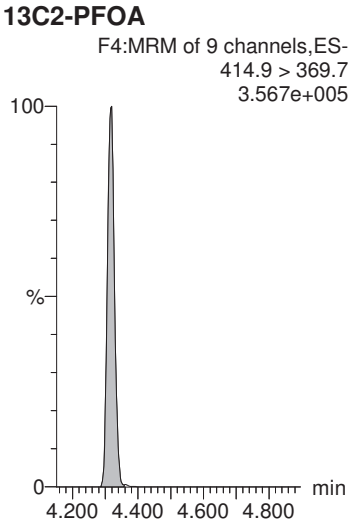
PFTeDA



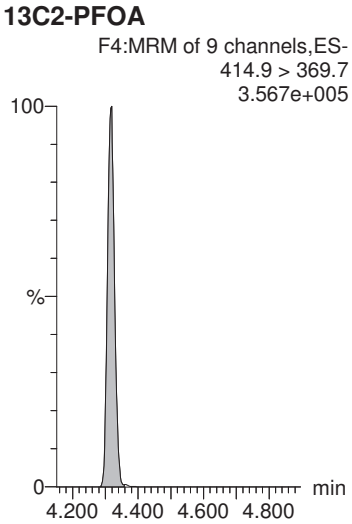
13C2-PFHxA



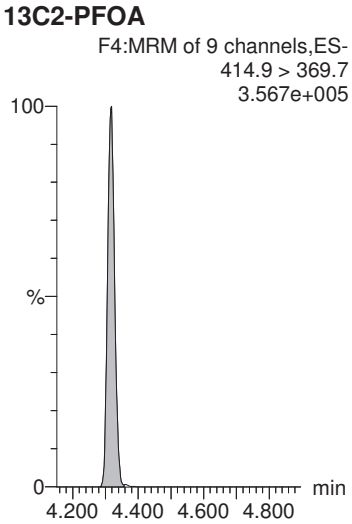
13C2-PFOA



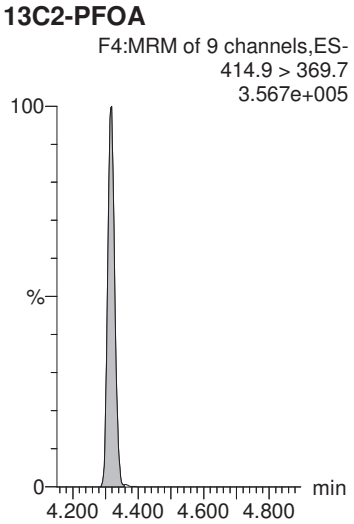
13C2-PFOA



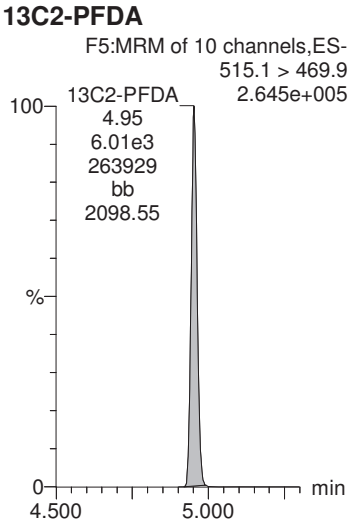
13C2-PFOA



13C2-PFOA



13C2-PFDA



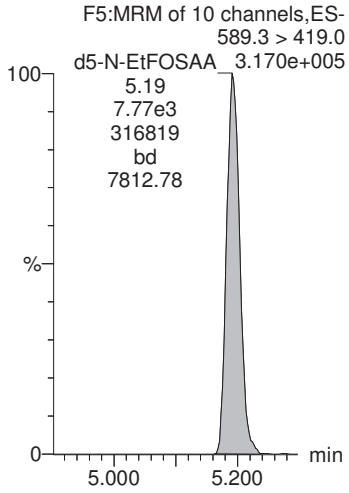
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_9, Date: 25-Jan-2018, Time: 17:01:00, ID: ST180125G3-8 PFC CS4 537 18A2414, Description: PFC CS4 537 18A2414

d5-N-EtFOSAA



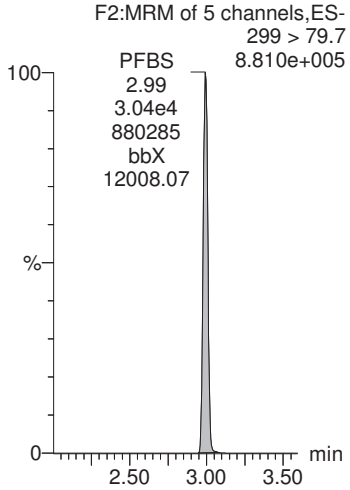
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

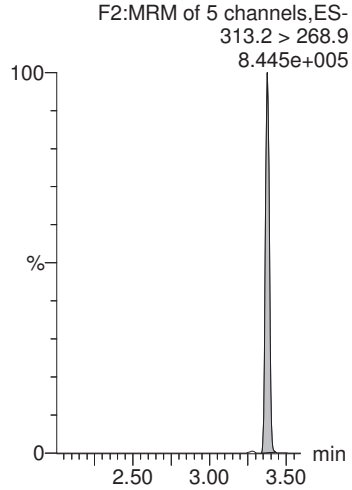
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_10, Date: 25-Jan-2018, Time: 17:13:03, ID: ST180125G3-9 PFC CS5 537 18A2415, Description: PFC CS5 537 18A2415

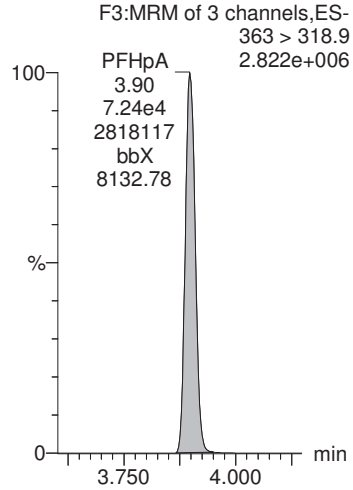
PFBS



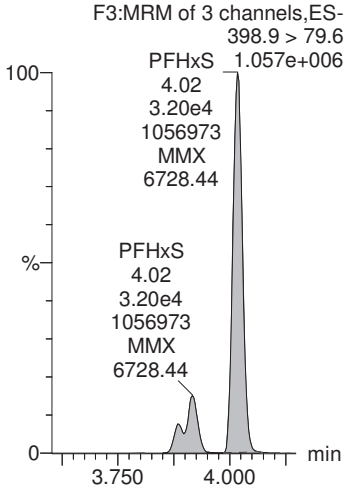
PFHxA



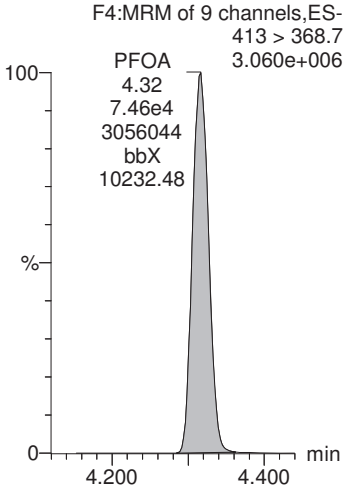
PFHpA



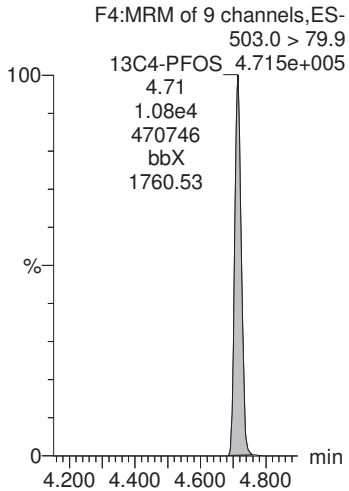
PFHxS



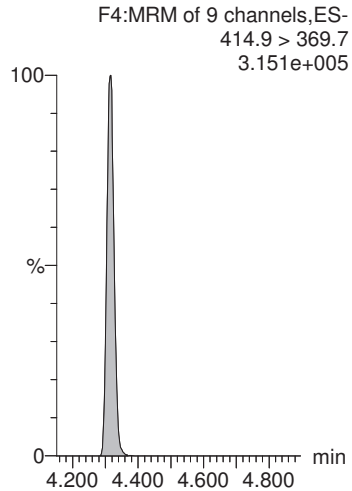
PFOA



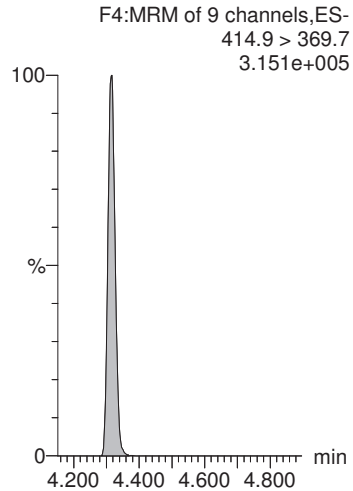
13C4-PFOS



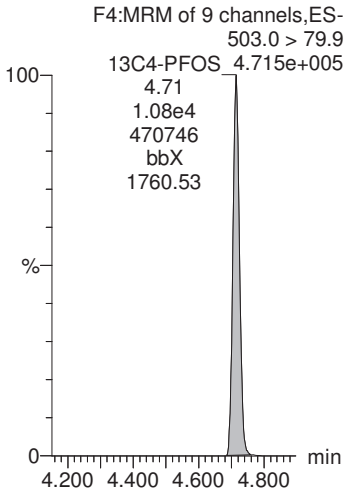
13C2-PFOA



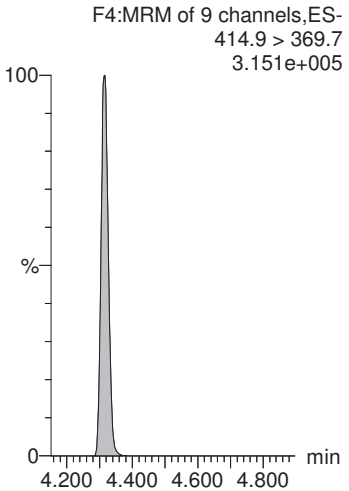
13C2-PFOA



13C4-PFOS



13C2-PFOA



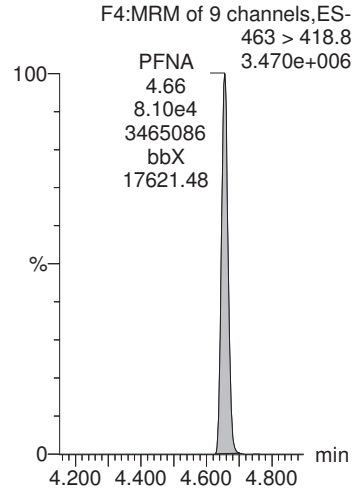
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

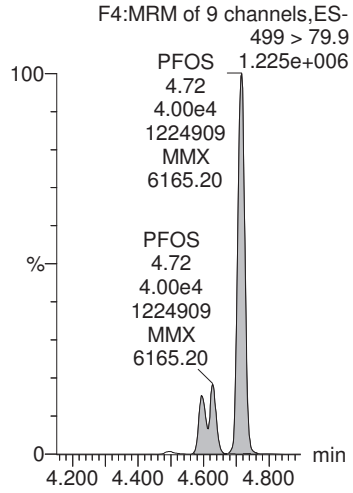
Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_10, Date: 25-Jan-2018, Time: 17:13:03, ID: ST180125G3-9 PFC CS5 537 18A2415, Description: PFC CS5 537 18A2415

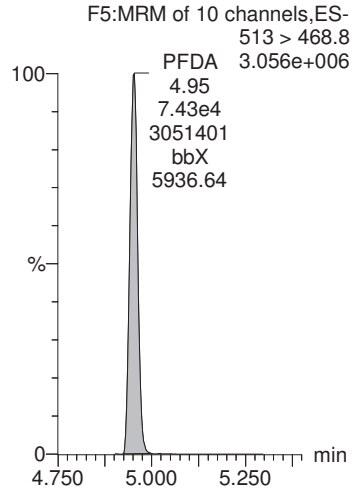
PFNA



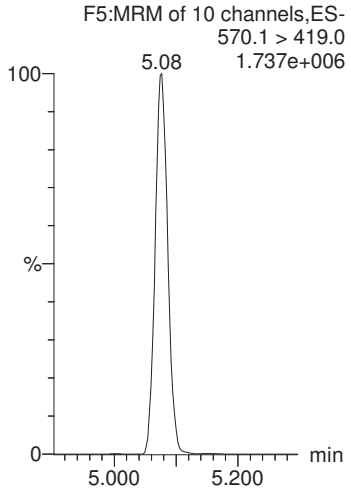
PFOS



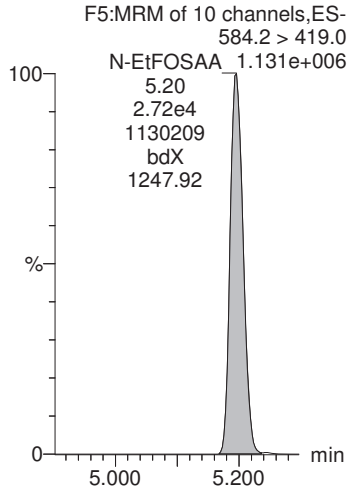
PFDA



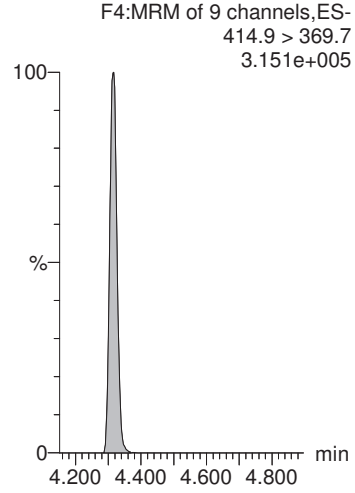
N-MeFOSAA



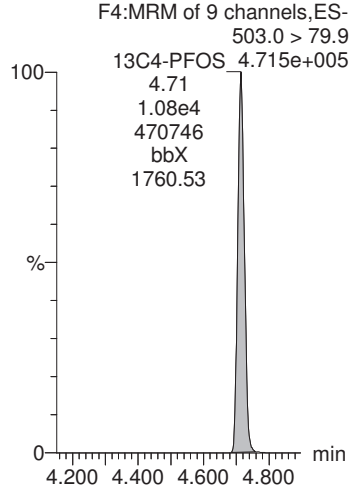
N-EtFOSAA



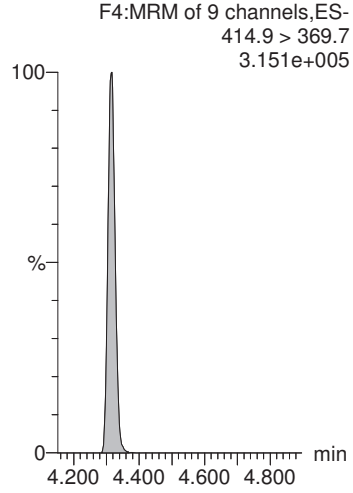
13C2-PFOA



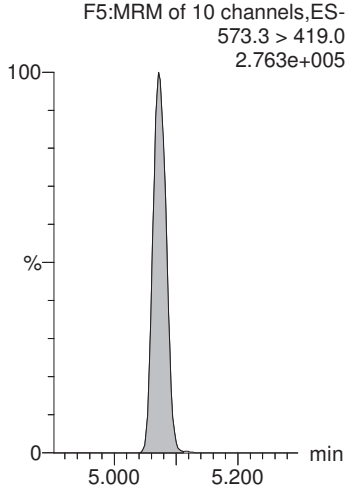
13C4-PFOS



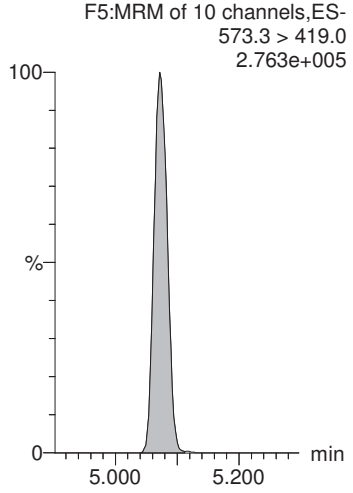
13C2-PFOA



d3-N-MeFOSAA



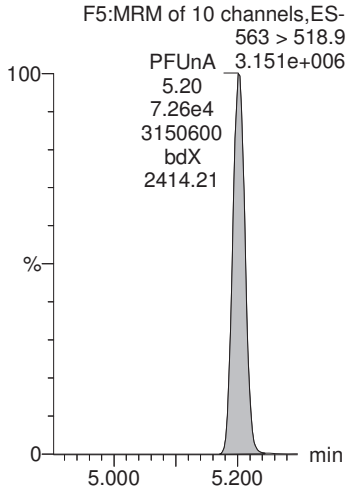
d3-N-MeFOSAA



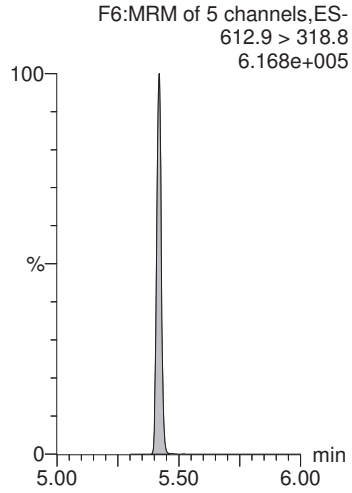
MJT 1/26/2018

Name: 180125G3_10, Date: 25-Jan-2018, Time: 17:13:03, ID: ST180125G3-9 PFC CS5 537 18A2415, Description: PFC CS5 537 18A2415

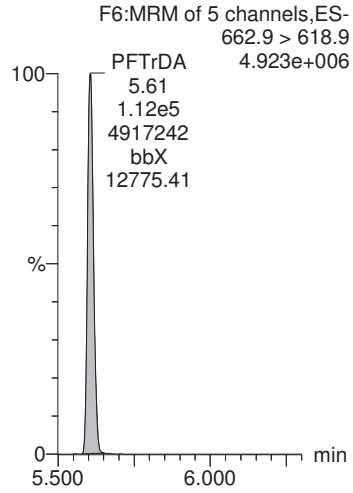
PFUnA



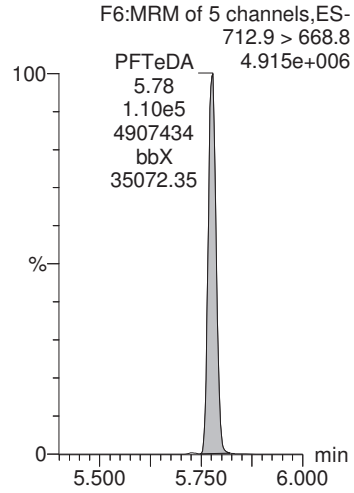
PFDoA



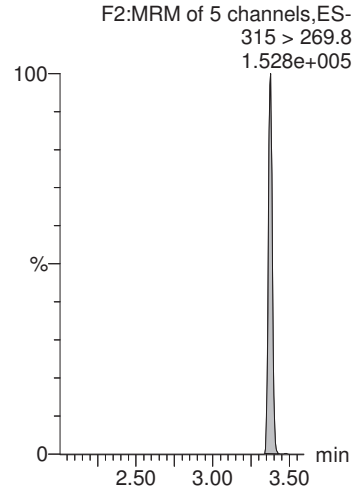
PFTrDA



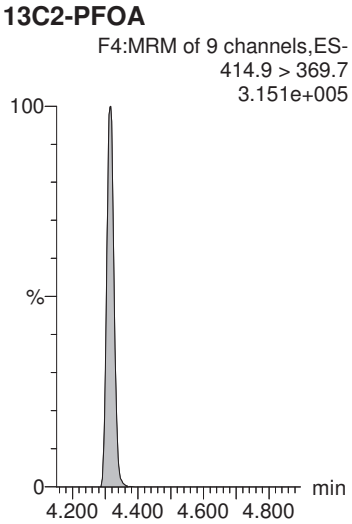
PFTeDA



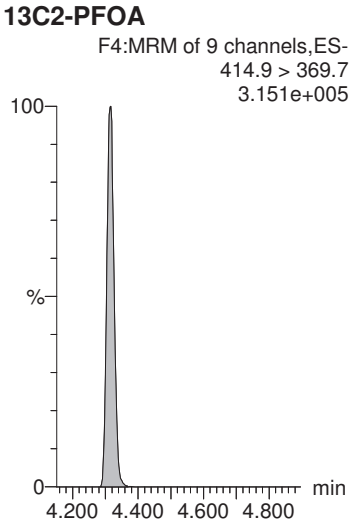
13C2-PFHxA



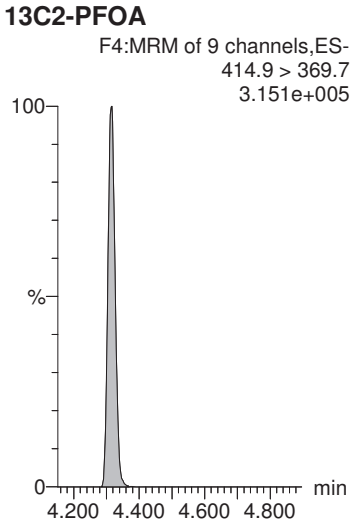
13C2-PFOA



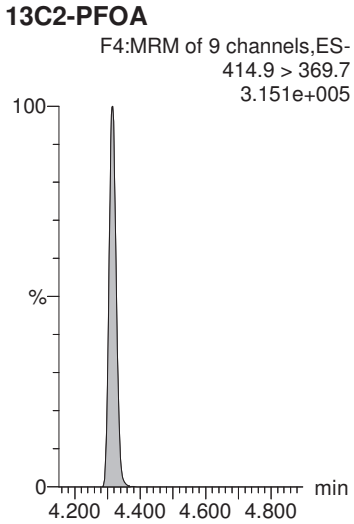
13C2-PFOA



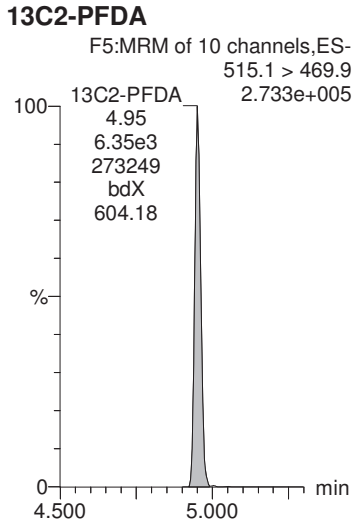
13C2-PFOA



13C2-PFOA



13C2-PFDA



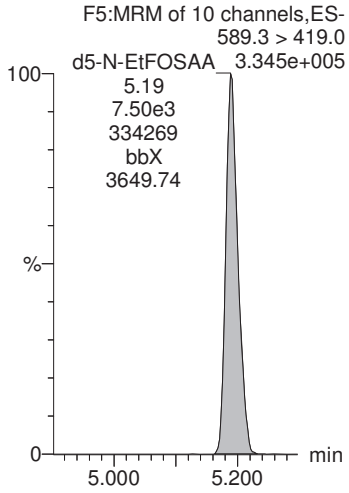
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-CRV.qld

Last Altered: Friday, January 26, 2018 08:32:03 Pacific Standard Time
Printed: Friday, January 26, 2018 08:55:21 Pacific Standard Time

Name: 180125G3_10, Date: 25-Jan-2018, Time: 17:13:03, ID: ST180125G3-9 PFC CS5 537 18A2415, Description: PFC CS5 537 18A2415

d5-N-EtFOSAA



MJT 1/26/2018

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-12.qld

Last Altered: Friday, January 26, 2018 09:07:21 Pacific Standard Time
Printed: Friday, January 26, 2018 09:08:51 Pacific Standard Time

Rev'd: AMH 01/26/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_12, Date: 25-Jan-2018, Time: 17:37:42, ID: ICV180125G3-1 PFC ICV 537 18A2416, Description: PFC ICV 537 18A2416

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBS	299 > 79.7	3.45e3	1.16e4	1.0000		3.02	2.99	8.52	10.049	100.5
2	2	PFHxA	313.2 > 268.9	2.48e3	9.59e3	1.0000		3.37	3.38	2.59	9.220	92.2
3	3	PFHpA	363 > 318.9	7.38e3	9.59e3	1.0000		3.88	3.90	7.70	9.446	94.5
4	4	PFHxS	398.9 > 79.6	3.66e3	1.16e4	1.0000		4.00	4.02	9.02	10.235	102.4
5	5	PFOA	413 > 368.7	7.62e3	9.59e3	1.0000		4.32	4.32	7.94	9.694	96.9
6	6	PFNA	463 > 418.8	8.73e3	9.59e3	1.0000		4.66	4.66	9.10	9.790	97.9
7	7	PFOS	499 >79.9	4.45e3	1.16e4	1.0000		4.72	4.71	11.0	10.060	100.6
8	8	PFDA	513 > 468.8	7.83e3	9.59e3	1.0000		4.99	4.95	8.17	9.114	91.1
9	9	N-MeFOSAA	570.1 > 419.0	3.52e3	7.87e3	1.0000		5.01	5.08	17.9	8.352	83.5
10	10	N-EtFOSAA	584.2 >419.0	2.54e3	7.87e3	1.0000		5.19	5.20	12.9	8.887	88.9
11	11	PFDoA	612.9 > 318.8	1.35e3	9.59e3	1.0000		5.35	5.42	1.41	8.838	88.4
12	12	PFUnA	563 > 518.9	7.48e3	9.59e3	1.0000		5.15	5.20	7.80	8.918	89.2
13	13	PFTrDA	662.9 > 618.9	1.22e4	9.59e3	1.0000		5.68	5.61	12.7	9.761	97.6
14	14	PFTeDA	712.9 > 668.8	1.07e4	9.59e3	1.0000		5.85	5.78	11.2	8.921	89.2
15	15	13C2-PFHxA	315 > 269.8	4.76e3	9.59e3	1.0000	0.486	3.46	3.38	4.96	10.208	102.1
16	16	13C2-PFDA	515.1 > 469.9	6.17e3	9.59e3	1.0000	0.675	4.92	4.95	6.44	9.540	95.4
17	17	d5-N-EtFOSAA	589.3 > 419.0	7.82e3	7.87e3	1.0000	1.076	5.07	5.20	39.7	36.942	92.4
18	18	13C2-PFOA	414.9 > 369.7	9.59e3	9.59e3	1.0000	1.000	4.31	4.32	10.0	10.000	100.0
19	19	13C4-PFOS	503.0 > 79.9	1.16e4	1.16e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20	d3-N-MeFOSAA	573.3 > 419.0	7.87e3	7.87e3	1.0000	1.000	5.16	5.07	40.0	40.000	100.0
21	21	Total PFOA	413 > 368.7	7.62e3	9.59e3	1.0000	0.826	4.32		7.94	9.694	
22	22	Total PFOS	499 >79.9	4.45e3	1.16e4	1.0000	1.041	4.73		11.0	10.060	
23	23	Total PFOA+PFOS	413 > 368.7,4...	1.21e4		1.0000	0.934	0.00		18.9	19.754	

MJT 1/26/2018

Vista Analytical Laboratory

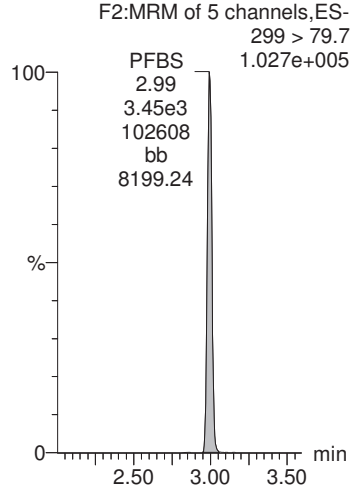
Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-12.qld

Last Altered: Friday, January 26, 2018 09:07:21 Pacific Standard Time
Printed: Friday, January 26, 2018 09:08:51 Pacific Standard Time

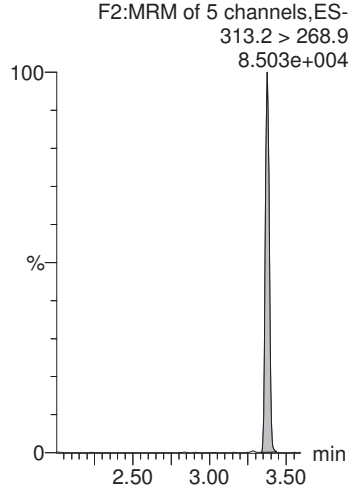
Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214total.mdb 24 Jan 2018 17:21:58
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-25-18_L14.cdb 26 Jan 2018 08:32:03

Name: 180125G3_12, Date: 25-Jan-2018, Time: 17:37:42, ID: ICV180125G3-1 PFC ICV 537 18A2416, Description: PFC ICV 537 18A2416

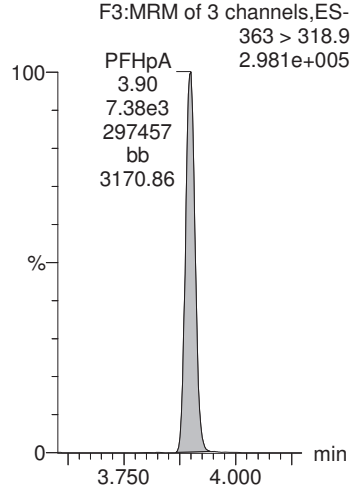
PFBS



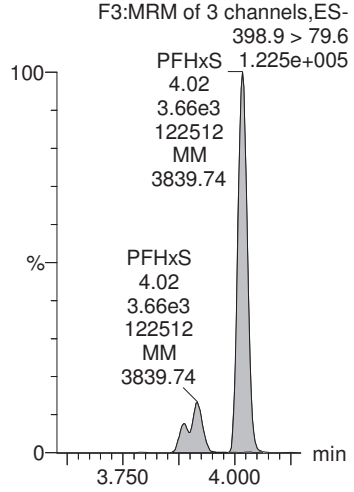
PFHxA



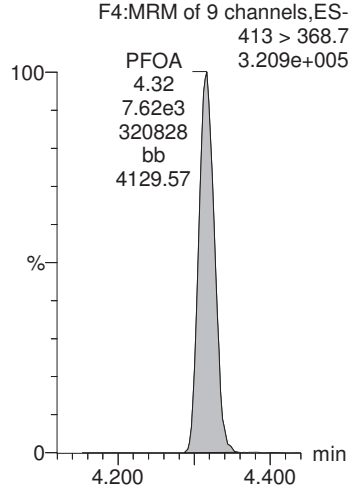
PFHpA



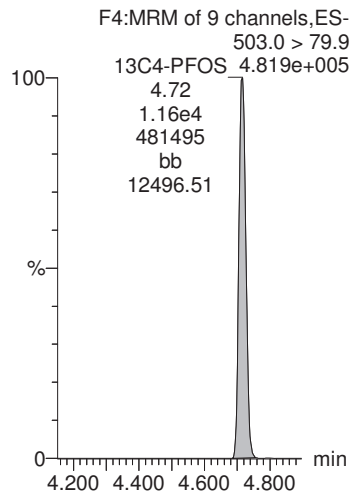
PFHxS



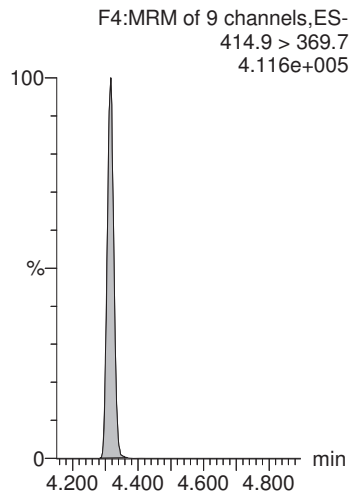
PFOA



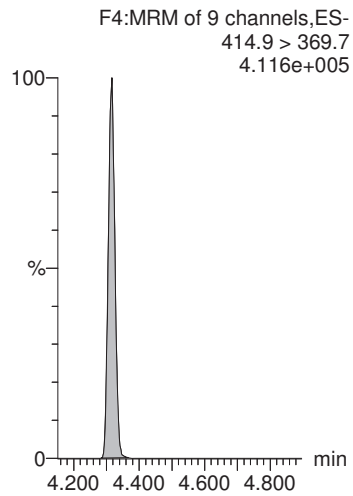
13C4-PFOS



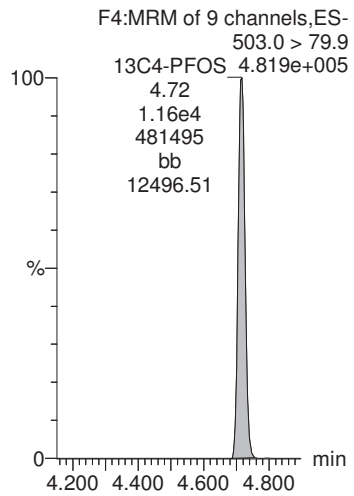
13C2-PFOA



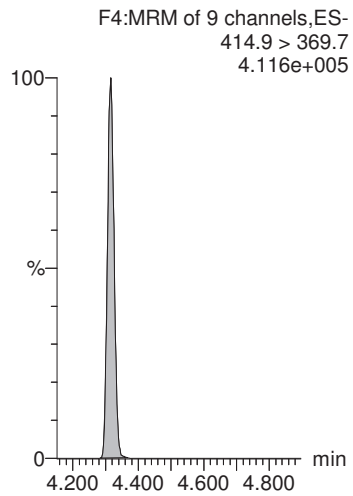
13C2-PFOA



13C4-PFOS



13C2-PFOA



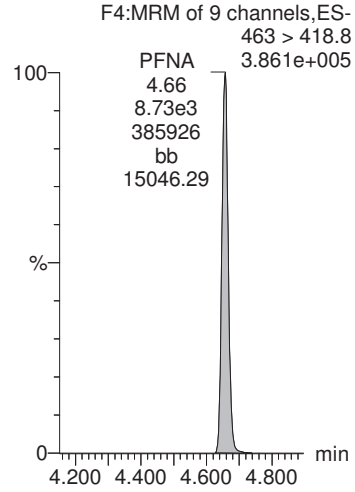
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-12.qld

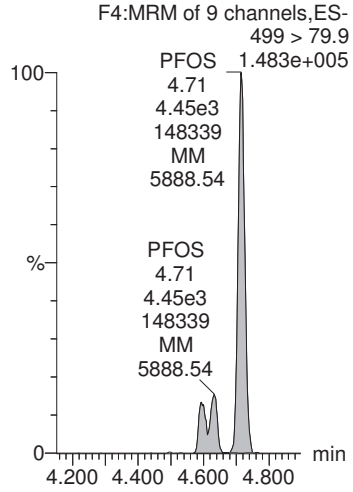
Last Altered: Friday, January 26, 2018 09:07:21 Pacific Standard Time
Printed: Friday, January 26, 2018 09:08:51 Pacific Standard Time

Name: 180125G3_12, Date: 25-Jan-2018, Time: 17:37:42, ID: ICV180125G3-1 PFC ICV 537 18A2416, Description: PFC ICV 537 18A2416

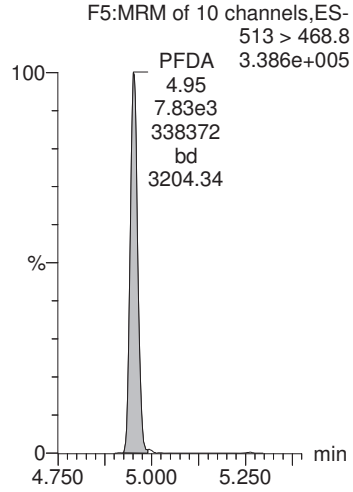
PFNA



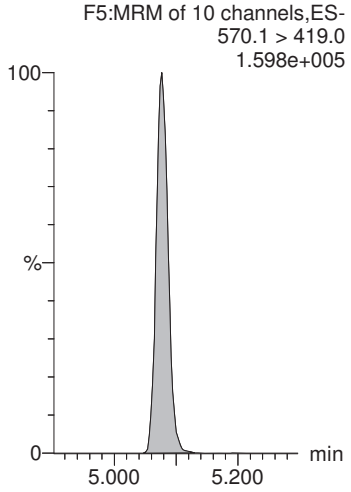
PFOS



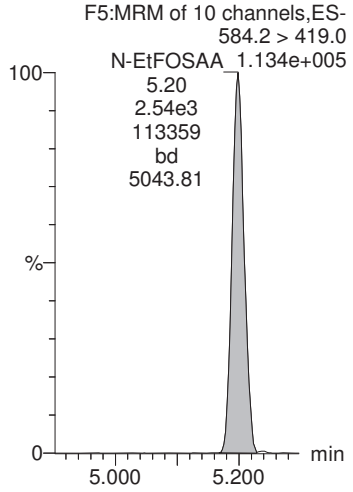
PFDA



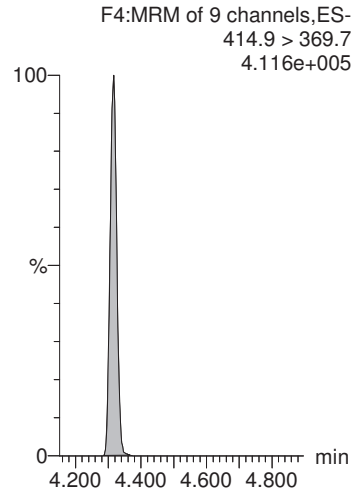
N-MeFOSAA



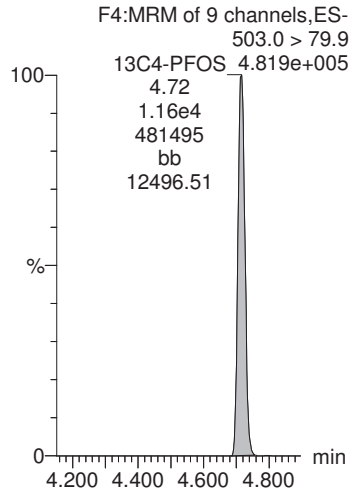
N-EtFOSAA



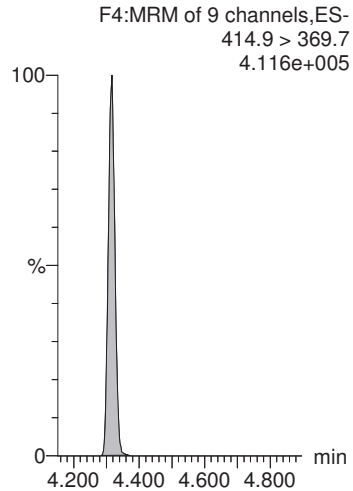
13C2-PFOA



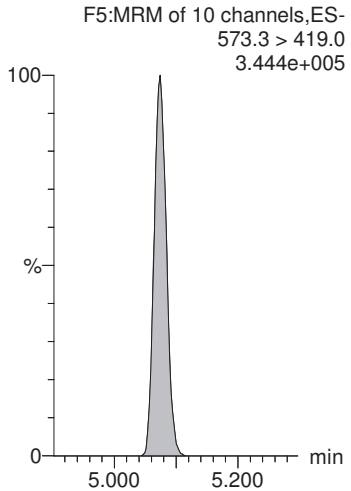
13C4-PFOS



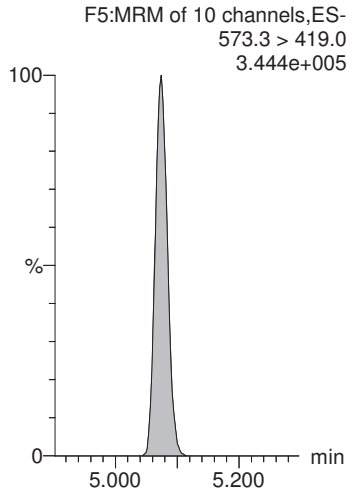
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



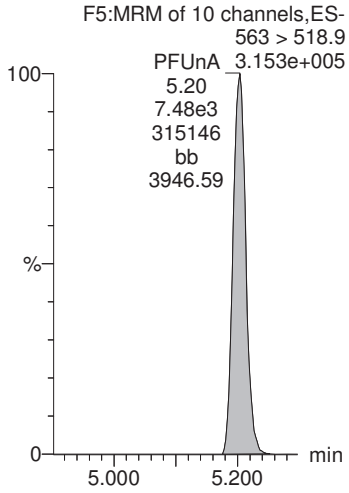
MJT 1/26/2018

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-12.qld

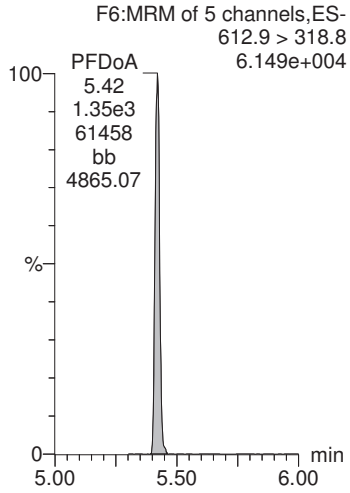
Last Altered: Friday, January 26, 2018 09:07:21 Pacific Standard Time
Printed: Friday, January 26, 2018 09:08:51 Pacific Standard Time

Name: 180125G3_12, Date: 25-Jan-2018, Time: 17:37:42, ID: ICV180125G3-1 PFC ICV 537 18A2416, Description: PFC ICV 537 18A2416

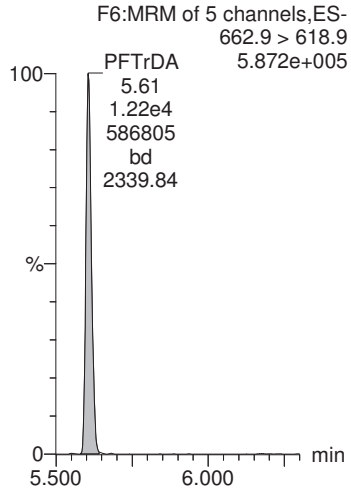
PFUnA



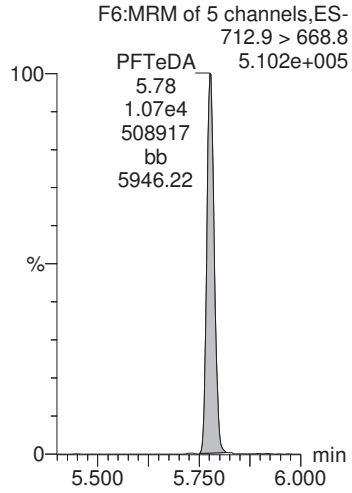
PFDoA



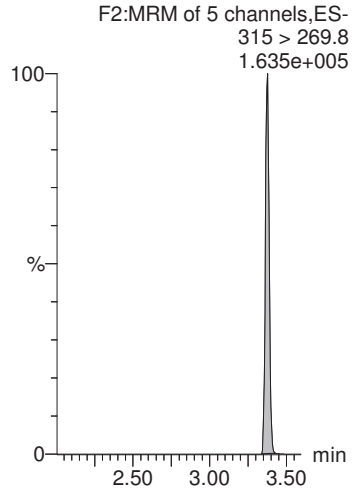
PFTrDA



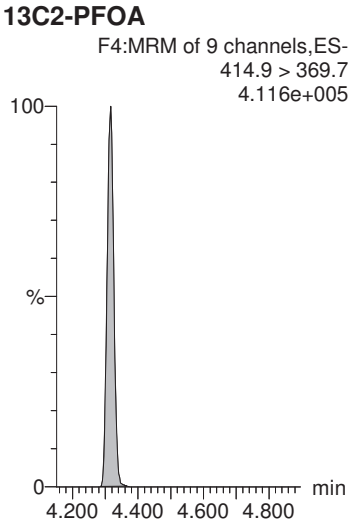
PFTeDA



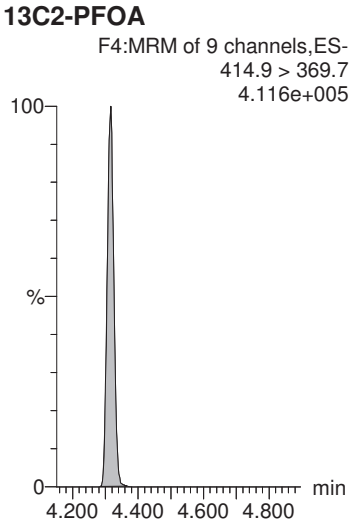
13C2-PFHxA



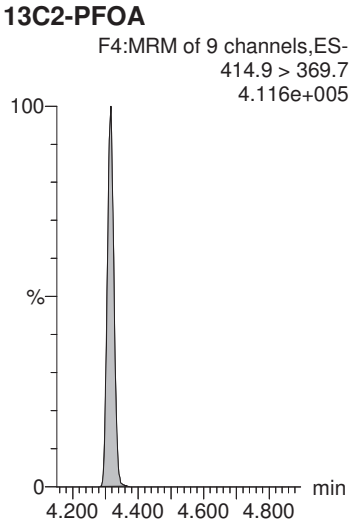
13C2-PFOA



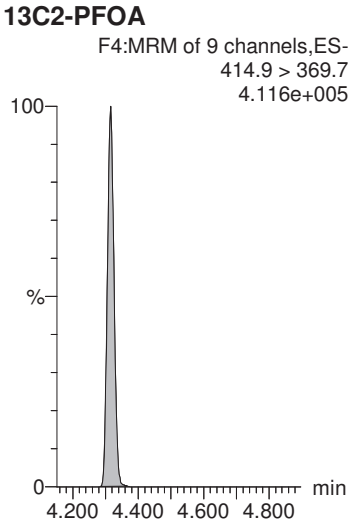
13C2-PFOA



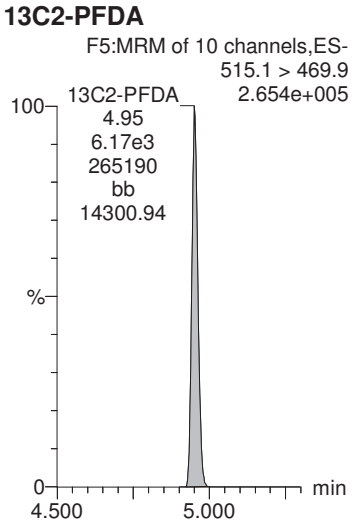
13C2-PFOA



13C2-PFOA



13C2-PFDA



MJT 1/26/2018

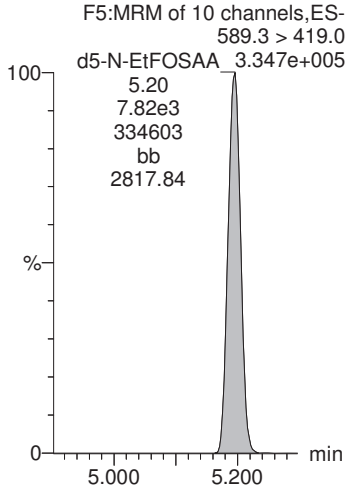
Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180125G3\180125G3-12.qld

Last Altered: Friday, January 26, 2018 09:07:21 Pacific Standard Time
Printed: Friday, January 26, 2018 09:08:51 Pacific Standard Time

Name: 180125G3_12, Date: 25-Jan-2018, Time: 17:37:42, ID: ICV180125G3-1 PFC ICV 537 18A2416, Description: PFC ICV 537 18A2416

d5-N-EtFOSAA



MJT 1/26/2018

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.10	NG_L	U		PR	TRG									5.1	0.451	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		1.06	NG_L	JB		PR	TRG									5.1	0.676	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.10	NG_L	U		PR	TRG									5.1	0.543	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.10	NG_L	U		PR	TRG									5.1	0.423	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.10	NG_L	U		PR	TRG									5.1	1.10	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.10	NG_L	U		PR	TRG									5.1	1.47	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.10	NG_L	U		PR	TRG									5.1	1.06	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.10	NG_L	U		PR	TRG									5.1	1.30	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.10	NG_L	U		PR	TRG									5.1	3.10	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.10	NG_L	U		PR	TRG									5.1	1.97	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.10	NG_L	U		PR	TRG									5.1	0.260	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.10	NG_L	U		PR	TRG									5.1	0.970	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.10	NG_L	U		PR	TRG									5.1	0.961	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.10	NG_L	U		PR	TRG									5.1	0.792	5.10	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			Combined PFOS/PFOA	PFOS/PFOA		0.00	NG_L	U		PR	TRG									5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			13C2-PFHxA	13C2-PFHxA		93.7	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			13C2-PFDA	13C2-PFDA		84.3	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:30	01/12/2018			20180116	13:54:00	20180125	19:04:00	1800085-01	1	-999			d5-EtFOSAA	d5-EtFOSAA		105	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.06	NG_L	U		PR	TRG									5.1	0.448	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		1.31	NG_L	JB		PR	TRG									5.1	0.670	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.06	NG_L	U		PR	TRG									5.1	0.539	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.06	NG_L	U		PR	TRG									5.1	0.420	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.06	NG_L	U		PR	TRG									5.1	1.09	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.06	NG_L	U		PR	TRG									5.1	1.46	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.06	NG_L	U		PR	TRG									5.1	1.05	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		5.06	NG_L	U		PR	TRG									5.1	1.29	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		5.06	NG_L	U		PR	TRG									5.1	3.07	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		5.06	NG_L	U		PR	TRG									5.1	1.95	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		5.06	NG_L	U		PR	TRG									5.1	0.258	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		5.06	NG_L	U		PR	TRG									5.1	0.963	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		5.06	NG_L	U		PR	TRG									5.1	0.954	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		5.06	NG_L	U		PR	TRG									5.1	0.786	5.06	10.1	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			Combined PFOS/PFOA	PFOS/PFOA		0.00	NG_L	U		PR	TRG									5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			13C2-PFHxA	13C2-PFHxA		93.7	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			13C2-PFDA	13C2-PFDA		77.6	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-VL101D-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:35	01/12/2018			20180116	13:54:00	20180125	19:16:00	1800085-02	1	-999			d5-EtFOSAA	d5-EtFOSAA		96.4	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.98	NG_L	U		PR	TRG									5.1	0.441	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorohexanoic Acid (PFHxA)	307-24-4		1.26	NG_L	JB		PR	TRG									5.1	0.660	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		4.98	NG_L	U		PR	TRG									5.1	0.531	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		4.98	NG_L	U		PR	TRG									5.1	0.413	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.98	NG_L	U		PR	TRG									5.1	1.08	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		4.98	NG_L	U		PR	TRG									5.1	1.43	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.98	NG_L	U		PR	TRG									5.1	1.04	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorodecanoic Acid (PFDA)	335-76-2		4.98	NG_L	U		PR	TRG									5.1	1.27	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	2355-31-9		4.98	NG_L	U		PR	TRG									5.1	3.03	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		4.98	NG_L	U		PR	TRG									5.1	1.92	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		4.98	NG_L	U		PR	TRG									5.1	0.254	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorododecanoic Acid (PFDoA)	307-55-1		4.98	NG_L	U		PR	TRG									5.1	0.948	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		4.98	NG_L	U		PR	TRG									5.1	0.939	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		4.98	NG_L	U		PR	TRG									5.1	0.774	4.98	9.96	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			Combined PFOS/PFOA	PFOS/PFOA		0.00	NG_L	U		PR	TRG									5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			13C2-PFHxA	13C2-PFHxA		104	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			13C2-PFDA	13C2-PFDA		86.4	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	IR54-PSW-FB-17D	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 14:40	01/12/2018			20180116	13:54:00	20180125	19:29:00	1800085-03	1	-999			d5-EtFOSAA	d5-EtFOSAA		87.6	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U		PR	TRG									5.1	0.443	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFHxA	307-24-4		1.01	NG_L	J		PR	TRG									5.1	0.663	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		5.00	NG_L	U		PR	TRG									5.1	0.533	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		5.00	NG_L	U		PR	TRG									5.1	0.415	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U		PR	TRG									5.1	1.08	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		5.00	NG_L	U		PR	TRG									5.1	1.44	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U		PR	TRG									5.1	1.04	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFDA	335-76-2		5.00	NG_L	U		PR	TRG									5.1	1.28	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			MeFOSAA	2355-31-9		5.00	NG_L	U		PR	TRG									5.1	3.04	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			EtFOSAA	2991-50-6		5.00	NG_L	U		PR	TRG									5.1	1.93	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFUnA	2058-94-8		5.00	NG_L	U		PR	TRG									5.1	0.255	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFDoA	307-55-1		5.00	NG_L	U		PR	TRG									5.1	0.952	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFTrDA	72629-94-8		5.00	NG_L	U		PR	TRG									5.1	0.943	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			PFTeDA	376-06-7		5.00	NG_L	U		PR	TRG									5.1	0.777	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			Combined PFOA/PFOS	Combined PFOA/PFOS		0.00	NG_L	U		PR	TRG									5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			13C2-PFHxA	13C2-PFHxA		93.6	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			13C2-PFDA	13C2-PFDA		110	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Blank	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BLK	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	18:04:00	B8A0089-BLK1	1	-999			d5-EtFOSAA	d5-EtFOSAA		95.7	PCT_REC			PR	SURR		SLSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		38.2	NG_L			PR	TRG		LSA	130	70					5.1	0.443	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFHxA	307-24-4		34.6	NG_L	B		PR	TRG		LSA	130	70					5.1	0.663	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		36.0	NG_L			PR	TRG		LSA	130	70					5.1	0.533	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		40.7	NG_L			PR	TRG		LSA	130	70					5.1	0.415	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		35.9	NG_L			PR	TRG		LSA	130	70					5.1	1.08	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		36.4	NG_L			PR	TRG		LSA	130	70					5.1	1.44	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		38.6	NG_L			PR	TRG		LSA	130	70					5.1	1.04	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFDA	335-76-2		32.6	NG_L			PR	TRG		LSA	130	70					5.1	1.28	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			MeFOSAA	2355-31-9		37.3	NG_L			PR	TRG		LSA	130	70					5.1	3.04	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			EtFOSAA	2991-50-6		40.0	NG_L			PR	TRG		LSA	130	70					5.1	1.93	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFUnA	2058-94-8		35.6	NG_L			PR	TRG		LSA	130	70					5.1	0.255	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFDoA	307-55-1		35.9	NG_L			PR	TRG		LSA	130	70					5.1	0.952	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFTrDA	72629-94-8		34.3	NG_L			PR	TRG		LSA	130	70					5.1	0.943	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			PFTeDA	376-06-7		32.7	NG_L			PR	TRG		LSA	130	70					5.1	0.777	5.00	10.0	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			13C2-PFHxA	13C2-PFHxA		98.4	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			13C2-PFDA	13C2-PFDA		86.0	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	LCS	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	BS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180125	18:52:00	B8A0089-BS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		91.1	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		29.6	NG_L			PR	TRG		LSA	130	70					5.1	0.453	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFHxA	307-24-4		33.4	NG_L	B		PR	TRG		LSA	130	70					5.1	0.678	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		36.6	NG_L			PR	TRG		LSA	130	70					5.1	0.545	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		36.9	NG_L			PR	TRG		LSA	130	70					5.1	0.424	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		41.0	NG_L			PR	TRG		LSA	130	70					5.1	1.10	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		38.8	NG_L			PR	TRG		LSA	130	70					5.1	1.47	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		35.2	NG_L			PR	TRG		LSA	130	70					5.1	1.06	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFDA	335-76-2		34.7	NG_L			PR	TRG		LSA	130	70					5.1	1.31	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			MeFOSAA	2355-31-9		37.4	NG_L			PR	TRG		LSA	130	70					5.1	3.11	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			EtFOSAA	2991-50-6		48.0	NG_L			PR	TRG		LSA	130	70					5.1	1.97	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFUnA	2058-94-8		38.7	NG_L			PR	TRG		LSA	130	70					5.1	0.261	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFDoA	307-55-1		37.1	NG_L			PR	TRG		LSA	130	70					5.1	0.973	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFTrDA	72629-94-8		32.9	NG_L			PR	TRG		LSA	130	70					5.1	0.964	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			PFTeDA	376-06-7		35.7	NG_L			PR	TRG		LSA	130	70					5.1	0.795	5.12	10.2	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			13C2-PFHxA	13C2-PFHxA		87.1	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			13C2-PFDA	13C2-PFDA		88.7	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MS	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:44:00	B8A0089-MS1	1	-999			d5-EtFOSAA	d5-EtFOSAA		107	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		35.5	NG_L			PR	TRG		LSA	130	70					5.1	0.458	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFHxA	307-24-4		37.4	NG_L	B		PR	TRG		LSA	130	70					5.1	0.685	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluoroheptanoic acid (PFHpA)	375-85-9		39.3	NG_L			PR	TRG		LSA	130	70					5.1	0.551	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluorohexanesulfonic acid (PFHxS)	355-46-4		39.9	NG_L			PR	TRG		LSA	130	70					5.1	0.429	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		44.1	NG_L			PR	TRG		LSA	130	70					5.1	1.12	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluorononanoic acid (PFNA)	375-95-1		43.4	NG_L			PR	TRG		LSA	130	70					5.1	1.49	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		37.3	NG_L			PR	TRG		LSA	130	70					5.1	1.07	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFDA	335-76-2		38.2	NG_L			PR	TRG		LSA	130	70					5.1	1.32	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			MeFOSAA	2355-31-9		43.5	NG_L			PR	TRG		LSA	130	70					5.1	3.14	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			EtFOSAA	2991-50-6		41.0	NG_L			PR	TRG		LSA	130	70					5.1	1.99	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFUnA	2058-94-8		35.0	NG_L			PR	TRG		LSA	130	70					5.1	0.264	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFDoA	307-55-1		38.6	NG_L			PR	TRG		LSA	130	70					5.1	0.984	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFTrDA	72629-94-8		37.1	NG_L			PR	TRG		LSA	130	70					5.1	0.975	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			PFTeDA	376-06-7		35.0	NG_L			PR	TRG		LSA	130	70					5.1	0.803	5.17	10.3	1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			13C2-PFHxA	13C2-PFHxA		89.8	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			13C2-PFDA	13C2-PFDA		91.8	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		
N6247016D9000	WE37		CAMP_LEJEUNE_MCB	Matrix Spike Dup	NONS	SVOA	537_MOD	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	MSD	W	4	01/16/2018 13:54	01/16/2018			20180116	13:54:00	20180118	19:56:00	B8A0089-MSD1	1	-999			d5-EtFOSAA	d5-EtFOSAA		104	PCT_REC			PR	SURR		LSA	130	70					5.1				1800085	S8A0063		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
MCB CAMP LEJEUNE, NORTH CAROLINA

Client: CH2M HILL, Inc., Virginia Beach, Virginia
SDG: 1800085
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: MCB Camp Lejeune, CTO-WE37, Site 54
Date: February 5, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	IR54-PSW-VL101-17D	1800085-01	Water
1MS	IR54-PSW-VL101-17DMS	1800085-01MS	Water
1MSD	IR54-PSW-VL101-17DMSD	1800085-01MSD	Water
2	IR54-PSW-VL101D-17D	1800085-02	Water
3	IR54-PSW-FB-17D	1800085-03	Water

A full data validation was performed on the analytical data for two water samples and one aqueous field blank sample collected on January 11, 2018 by CH2M HILL at the MCB Camp Lejeune site in 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 Superfund Organic 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
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the data quality indicator criteria as detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All correlation coefficient and/or percent recovery (%R) criteria were met.

Continuing Calibration

- All continuing calibration percent recovery (%R) criteria were met except for the following.

CCAL Date	Compound	%R	Qualifier	Affected Samples
1/18/18	EtFOSAA	132.2%	None	All ND

Method Blank

- The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
B8A0089-BLK1	PFHxA	1.01	U	1-3

Field QC Blank

- Field QC samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
IR54-PSW-FB-17D	None - ND	-	-	-

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

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

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

Internal Standard (IS) Area Performance

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

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	IR54-PSW-VL101-17D ng/L	IR54-PSW-VL101D-17D ng/L	RPD	Qualifier
None	ND	ND	-	-

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 2/7/18

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: IR54-PSW-VL101-17D

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Location: Parent
Matrix: Aqueous
Date Collected: 11-Jan-18 14:30

Laboratory Data

Lab Sample: 1800085-01
Date Received: 12-Jan-18 12:52
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.451	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxA	5.10 ~~1.06~~ U	0.676	5.10	10.2	~~J, B~~	B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHpA	ND	0.543	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFHxS	ND	0.423	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOA	ND	1.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFNA	ND	1.47	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFOS	ND	1.06	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDA	ND	1.30	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
MeFOSAA	ND	3.10	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
EtFOSAA	ND	1.97	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFUnA	ND	0.260	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFDoA	ND	0.970	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTrDA	ND	0.961	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
PFTeDA	ND	0.792	5.10	10.2		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.7	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
13C2-PFDA	SURR	84.3	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1
d5-EtFOSAA	SURR	105	70 - 130		B8A0089	16-Jan-18	0.245 L	25-Jan-18 19:04	1

MBL

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.

NW 2/5/18

Vista Analytical Laboratory 2

Sample ID: IR54-PSW-VL101D-17D

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Location: Duplicate
Matrix: Aqueous
Date Collected: 11-Jan-18 14:35

Laboratory Data

Lab Sample: 1800085-02
Date Received: 12-Jan-18 12:52
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.448	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFHxA	5.06 ~~1.3+~~ U	0.670	5.06	10.1	~~J B~~	B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFHpA	ND	0.539	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFHxS	ND	0.420	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFOA	ND	1.09	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFNA	ND	1.46	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFOS	ND	1.05	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFDA	ND	1.29	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
MeFOSAA	ND	3.07	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
EtFOSAA	ND	1.95	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFUnA	ND	0.258	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFDoA	ND	0.963	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFTrDA	ND	0.954	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
PFTeDA	ND	0.786	5.06	10.1		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.7	70 - 130		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
13C2-PFDA	SURR	77.6	70 - 130		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1
d5-EtFOSAA	SURR	96.4	70 - 130		B8A0089	16-Jan-18	0.247 L	25-Jan-18 19:16	1

MBL

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.

Nd 2/5/18

Vista 3 Analytical Laboratory

Sample ID: IR54-PSW-FB-17D

EPA Method 537

Client Data

Name: CH2M Hill
Project: PFAS PSW Drinking Water Sampling
Location: Field Blank
Matrix: Aqueous
Date Collected: 11-Jan-18 14:40

Laboratory Data

Lab Sample: 1800085-03
Date Received: 12-Jan-18 12:52
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		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFHxA	4.98 ~~1.26~~	0.660	4.98	9.96	~~J B~~	B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFHpA	ND	0.531	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFHxS	ND	0.413	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFOA	ND	1.08	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFNA	ND	1.43	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFOS	ND	1.04	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFDA	ND	1.27	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
MeFOSAA	ND	3.03	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
EtFOSAA	ND	1.92	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFUnA	ND	0.254	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFDoA	ND	0.948	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFTrDA	ND	0.939	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
PFTeDA	ND	0.774	4.98	9.96		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
Combined PFOA/PFOS	ND					B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	104	70 - 130		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
13C2-PFDA	SURR	86.4	70 - 130		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1
d5-EtFOSAA	SURR	87.6	70 - 130		B8A0089	16-Jan-18	0.251 L	25-Jan-18 19:29	1

MBL

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.

NW 2/5/18

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18
IR54-PSW-VL101	SITE 00054	CAMP_LEJEUNE_MCB	PW	Production well	1800085	2461281.47	347844.787	Perfluoroalkyl Compounds	IR54-PSW-VL101D-17D	WP	Drinking water	11-Jan-18
		CAMP_LEJEUNE_MCB			1800085			Perfluoroalkyl Compounds	IR54-PSW-FB-17D	WQ	Water for QC samples	11-Jan-18