



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 1800362**

*Naval Air Station Whidbey Island
Oak Harbor, Washington*

June 2019



March 06, 2018

Vista Work Order No. 1800362

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 23, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'NASWI Area 6'.

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. 1800362**Case Narrative****Sample Condition on Receipt:**

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

Analytical Notes:**Modified EPA Method 537**

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

Holding Times

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

Quality Control

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

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

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

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800362-01	WI-A06-RW17-0218	20-Feb-18 13:40	23-Feb-18 09:35	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800362-02	WI-A06-RW17P-0218	20-Feb-18 13:40	23-Feb-18 09:35	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800362-03	WI-A06-FB02-022018	20-Feb-18 13:50	23-Feb-18 09:35	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB						EPA Method 537					
Client Data Name: CH2M Hill Project: NASWI Area 6						Laboratory Data Lab Sample: B8B0160-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		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHxA	ND	0.663	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHpA	ND	0.533	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHxS	ND	0.415	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFOA	ND	1.08	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFNA	ND	1.44	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFOS	ND	1.04	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFDA	ND	1.28	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
MeFOSAA	ND	3.04	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
EtFOSAA	ND	1.93	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFUnA	ND	0.255	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFDoA	ND	0.952	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFTTrDA	ND	0.943	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFTeDA	ND	0.777	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	95.7	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
13C2-PFDA	SURR	88.4	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
d5-EtFOSAA	SURR	92.0	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	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: NASWI Area 6					Laboratory Data Lab Sample: B8B0160-BS1 Column: BEH C18					
Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	69.0	70.8	97.5	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHxA	75.1	80.0	93.9	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHpA	83.2	80.0	104	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHxS	79.8	72.8	110	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFOA	80.2	80.0	100	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFNA	81.0	80.0	101	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFOS	74.9	74.0	101	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFDA	78.5	80.0	98.2	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
MeFOSAA	84.0	80.0	105	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
EtFOSAA	75.9	80.0	94.8	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFOA	75.7	80.0	94.6	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFDaA	70.8	80.0	88.5	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFTTrDA	72.2	80.0	90.3	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFTeDA	72.6	80.0	90.7	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		104	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
13C2-PFDA	SURR		89.5	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
d5-EtFOSAA	SURR		79.4	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1

Sample ID: WI-A06-RW17-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800362-01	Column:	BEH C18
Project:	NASWI Area 6	Date Collected:	20-Feb-18 13:40	Date Received:	23-Feb-18 09:35		
Location:	AREA 6						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.398	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHxA	ND	0.596	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHpA	ND	0.479	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHxS	ND	0.373	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFOA	ND	0.971	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFNA	ND	1.29	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFOS	ND	0.935	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFDA	ND	1.15	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
MeFOSAA	ND	2.73	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
EtFOSAA	ND	1.74	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFUnA	ND	0.229	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFDoA	ND	0.856	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFTTrDA	ND	0.848	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFTeDA	ND	0.699	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.9	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
13C2-PFDA	SURR	84.3	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
d5-EtFOSAA	SURR	101	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	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: WI-A06-RW17P-0218						EPA Method 537					
Client Data Name: CH2M Hill Project: NASWI Area 6 Location: AREA 6						Laboratory Data Lab Sample: 1800362-02 Date Received: 23-Feb-18 09:35 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.400	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHxA	ND	0.598	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHpA	ND	0.481	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHxS	ND	0.374	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFOA	ND	0.974	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFNA	ND	1.30	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFOS	ND	0.938	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFDA	ND	1.15	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
MeFOSAA	ND	2.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
EtFOSAA	ND	1.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFUnA	ND	0.230	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFDoA	ND	0.859	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFTTrDA	ND	0.851	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFTeDA	ND	0.701	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	88.1	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
13C2-PFDA	SURR	77.3	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
d5-EtFOSAA	SURR	99.7	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	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: WI-A06-FB02-022018
EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800362-03	Column:	BEH C18		
Project:	NASWI Area 6	Date Collected:	20-Feb-18 13:50	Date Received:	23-Feb-18 09:35				
Location:	AREA 6								

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.415	4.68	9.37	J	B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxA	0.689	0.621	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHpA	ND	0.500	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxS	ND	0.389	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOA	ND	1.01	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFNA	ND	1.35	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOS	ND	0.975	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDA	ND	1.20	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
MeFOSAA	ND	2.85	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
EtFOSAA	ND	1.81	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFUnA	ND	0.239	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDoA	ND	0.892	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTTrDA	ND	0.884	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTeDA	ND	0.728	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
13C2-PFDA	SURR	86.2	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
d5-EtFOSAA	SURR	89.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	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.

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.

Init

CB 02/23/18



CHAIN OF CUSTODY

For Laboratory Use Only

Work Order #: 1800362 Temp: 0.0 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: NASWI Area 6 PO#: 695610.05.FI.FS Sampler: David Butler
(name)

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

Invoice to: Name Company Address City State Ph# Fax#
Heather Perry CH2M 2525 Airpark Drive Redding CA 530-229-3276

Relinquished by (printed name and signature) Date Time Received by (printed name and signature) Date Time
Eriz Cutler 2-22-18 0900 B. Benedict 02/23/18 0939
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: Sample Receiving

Method of Shipment:
Fed Ex
Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Mod. EPA
Method 537

EPA Method
537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
~~WI-A06-5-01-0218~~	~~2/19/18~~	~~1208~~	~~Area 6~~	~~2~~	~~P~~	~~AQ~~			~~X~~						~~AB~~
~~WI-A06-5-01P-0218~~	~~2/19/18~~	~~1218~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~AB~~
~~WI-A06-5-01-0218-M9~~	~~2/19/18~~	~~1208~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~MS~~
~~WI-A06-5-01-0218-MSD~~	~~2/19/18~~	~~1208~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~MSD~~
~~WI-A06-FB01-021918~~	~~2/19/18~~	~~1300~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~AB~~
* WI-A06-FB01-021918	2/19/18	1645		2	P	AQ			X						
* WI-A06-MW-13-0218	2/20/18	1110		2	P	AQ			X						
~~WI-A06-MW-13-0218~~															
* WI-A06-FB01-022018	2/20/18	1125		2	P	AQ			X						
WI-A06-RW17-0218	2/20/18	1340		2	P	DV								X	

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

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

Container Types: P= HDPE, PJ= HDPE Jar

O= Other: _____

Bottle Preservation Type: T= Thiosulfate,

TZ= Trizma: _____

Matrix Types: AQ= Aqueous, DW= Drinking Water, EF= Effluent, PP= Pulp/Paper, SD= Sediment,

SL= Sludge, SO= Soil, WW= Wastewater, B= Blood/Serum, O= Other: _____

Init BAB 07/23/18

CHAIN OF CUSTODY

For Laboratory Use Only

 Work Order #: 1800362 Temp: 0.0 °C
 Storage ID: WR-2 Storage Secured: Yes ☒ No ☐
Project ID: NASWI Area 6PO#: 695610.05, FI, FS Sampler: David Butler
(name)
 TAT (check one): Standard: ☐ 21 days
☐ 14 days ☒ 7 days Specify: _____
 Rush (surcharge may apply)

 Invoice to: Name Heather Perry Company CH2M Address 2525 Airpark Drive City Redding State CA Ph# 530-229-3276 Fax# _____
 Relinquished by (printed name and signature) Eric Cuthbert Date 2-22-18 Time 0900 Received by (printed name and signature) B Benedict Date 02/23/18 Time 0940

 Relinquished by (printed name and signature) Eric Cuthbert Date 2-22-18 Time 0900 Received by (printed name and signature) B Benedict Date 02/23/18 Time 0940

 SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 * Fax (916) 673-0106
ATTN: Sample ReceivingMethod of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Mod. EPA Method 537

EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Comments
WI-A06-RWITP-0218	2/20/18	1345	Area 6	2	P	DW									
WI-A06-FB02-022018	2/20/18	1350		1	P	DW									
* WI-A06-6-DW-38A-0218	2/20/18	1455		2	P	AQ			X						
* WI-A06-EB01-022018	2/20/18	1700		2	P	AQ			X						
* WI-A06-6-5-27-0218	2/21/18	1115		2	P	AQ			X						
* WI-A06-6-5-28-0218	2/21/18	1115		2	P	AQ			X						
* WI-A06-FB01-022118	2/21/18	1500		2	P	AQ			X						
* WI-A06-MW-01-0218	2/21/18	1510		2	P	AQ			X						
* WI-A06-EB01-022118	2/21/18	1650		2	P	AQ			X						

Special Instructions/Comments:

* WO 1800361

SEND DOCUMENTATION AND RESULTS TO:

 Name: Tiffany Hill
 Company: CH2M
 Address: 1100 NE Circle Blvd Suite 300
 City: Corvallis State: OR Zip: 97330
 Phone: 541-268-3109 Fax: _____
 Email: tiffany.hill@ch2m.com

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

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

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

Vista Work Order #: 1800362 TAT _____

Samples Arrival:	Date/Time 02/23/18 0935	Initials: UBB	Location: WR-2
			Shelf/Rack: NA
Logged In:	Date/Time 02/23/18 1344	Initials: UBB	Location: WR-2
			Shelf/Rack: B5
Delivered By:	☒ FedEx	☐ UPS	☐ On Trac
	☐ GSO	☐ DHL	☐ Hand Delivered
Preservation:	☒ Ice	☐ Blue Ice	☐ Dry Ice
	☐ None		
Temp °C: 0.1 (uncorrected)	Time: 0939		Thermometer ID: IR-4
Temp °C: 0.0 (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 # 7898 3562 1417			
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:	☒ Yes	☐ No	☐ NA
Shipping Container	☒ Vista	☐ Client	☐ Retain
	☐ Return	☐ Dispose	

Comments:



March 06, 2018

Vista Work Order No. 1800362

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

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 23, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'NASWI Area 6'.

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. 1800362**Case Narrative****Sample Condition on Receipt:**

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

Analytical Notes:**Modified EPA Method 537**

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

Holding Times

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

Quality Control

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

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

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

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800362-01	WI-A06-RW17-0218	20-Feb-18 13:40	23-Feb-18 09:35	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800362-02	WI-A06-RW17P-0218	20-Feb-18 13:40	23-Feb-18 09:35	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800362-03	WI-A06-FB02-022018	20-Feb-18 13:50	23-Feb-18 09:35	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB						EPA Method 537					
Client Data Name: CH2M Hill Project: NASWI Area 6						Laboratory Data Lab Sample: B8B0160-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		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHxA	ND	0.663	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHpA	ND	0.533	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFHxS	ND	0.415	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFOA	ND	1.08	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFNA	ND	1.44	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFOS	ND	1.04	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFDA	ND	1.28	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
MeFOSAA	ND	3.04	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
EtFOSAA	ND	1.93	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFUnA	ND	0.255	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFDoA	ND	0.952	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFTTrDA	ND	0.943	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
PFTeDA	ND	0.777	5.00	10.0		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	95.7	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
13C2-PFDA	SURR	88.4	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	1	
d5-EtFOSAA	SURR	92.0	70 - 130			B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:43	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: NASWI Area 6					Laboratory Data Lab Sample: B8B0160-BS1 Column: BEH C18					
Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	69.0	70.8	97.5	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHxA	75.1	80.0	93.9	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHpA	83.2	80.0	104	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFHxS	79.8	72.8	110	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFOA	80.2	80.0	100	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFNA	81.0	80.0	101	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFOS	74.9	74.0	101	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFDA	78.5	80.0	98.2	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
MeFOSAA	84.0	80.0	105	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
EtFOSAA	75.9	80.0	94.8	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFAUnA	75.7	80.0	94.6	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFAoA	70.8	80.0	88.5	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFATrDA	72.2	80.0	90.3	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
PFATeDA	72.6	80.0	90.7	70-130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		104	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
13C2-PFDA	SURR		89.5	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1
d5-EtFOSAA	SURR		79.4	70- 130		B8B0160	01-Mar-18	0.250 L	02-Mar-18 15:05	1

Sample ID: WI-A06-RW17-0218
EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800362-01	Column:	BEH C18
Project:	NASWI Area 6	Date Collected:	20-Feb-18 13:40	Date Received:	23-Feb-18 09:35		
Location:	AREA 6						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.398	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHxA	ND	0.596	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHpA	ND	0.479	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFHxS	ND	0.373	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFOA	ND	0.971	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFNA	ND	1.29	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFOS	ND	0.935	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFDA	ND	1.15	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
MeFOSAA	ND	2.73	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
EtFOSAA	ND	1.74	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFUnA	ND	0.229	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFDoA	ND	0.856	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFTTrDA	ND	0.848	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
PFTeDA	ND	0.699	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	96.9	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
13C2-PFDA	SURR	84.3	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1
d5-EtFOSAA	SURR	101	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	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: WI-A06-RW17P-0218						EPA Method 537					
Client Data Name: CH2M Hill Project: NASWI Area 6 Location: AREA 6						Laboratory Data Lab Sample: 1800362-02 Date Received: 23-Feb-18 09:35 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.400	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHxA	ND	0.598	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHpA	ND	0.481	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFHxS	ND	0.374	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFOA	ND	0.974	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFNA	ND	1.30	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFOS	ND	0.938	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFDA	ND	1.15	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
MeFOSAA	ND	2.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
EtFOSAA	ND	1.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFUnA	ND	0.230	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFDoA	ND	0.859	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFTTrDA	ND	0.851	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
PFTeDA	ND	0.701	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	88.1	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
13C2-PFDA	SURR	77.3	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1	
d5-EtFOSAA	SURR	99.7	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	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: WI-A06-FB02-022018

EPA Method 537

Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800362-03	Column:	BEH C18		
Project:	NASWI Area 6	Date Collected:	20-Feb-18 13:50	Date Received:	23-Feb-18 09:35				
Location:	AREA 6								

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.415	4.68	9.37	J	B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxA	0.689	0.621	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHpA	ND	0.500	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxS	ND	0.389	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOA	ND	1.01	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFNA	ND	1.35	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOS	ND	0.975	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDA	ND	1.20	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
MeFOSAA	ND	2.85	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
EtFOSAA	ND	1.81	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFUnA	ND	0.239	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDoA	ND	0.892	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTTrDA	ND	0.884	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTeDA	ND	0.728	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
13C2-PFDA	SURR	86.2	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
d5-EtFOSAA	SURR	89.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	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.

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.



CHAIN OF CUSTODY

EXACT COPY OF ORIGINAL

Init CH2M 02/23/18

For Laboratory Use Only

Work Order #: 1800362 Temp: 0.0 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: NASWI Area 6 PO#: 695610.05.FI.FS Sampler: David Butler
(name)

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

Invoice to: Name Company Address City State Ph# Fax#
Heather Perry CH2M 2525 Airpark Drive Redding CA 530-229-3276

Relinquished by (printed name and signature) Date Time Received by (printed name and signature) Date Time
Eriz Cutler 2-22-18 0900 B. Benedict Bob Benedict 02/23/18 0939
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: Sample Receiving

Method of Shipment:
Fed Ex
Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Mod. EPA
Method 537

EPA Method
537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
~~WI-A06-S-01-0218~~	~~2/19/18~~	~~1208~~	~~Area 6~~	~~2~~	~~P~~	~~AQ~~			~~X~~						~~(AB)~~
~~WI-A06-S-01P-0218~~	~~2/19/18~~	~~1218~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~(AB)~~
~~WI-A06-S-01-0218-M9~~	~~2/19/18~~	~~1208~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~MS (AB)~~
~~WI-A06-S-01-0218-MSD~~	~~2/19/18~~	~~1208~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~MSD (AB)~~
~~WI-A06-FB01-021918~~	~~2/19/18~~	~~1300~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~(AB)~~
* WI-A06-FB01-021918	2/19/18	1645		2	P	AQ			X						
* WI-A06-MW-13-0218	2/20/18	1110		2	P	AQ			X						
~~WI-A06-FB01-022018~~	~~2/20/18~~	~~1125~~		~~2~~	~~P~~	~~AQ~~			~~X~~						~~(AB)~~
* WI-A06-FB01-022018	2/20/18	1125		2	P	AQ			X						
WI-A06-RW17-0218	2/20/18	1340		2	P	DV								X	

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

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

Container Types: P= HDPE, PJ= HDPE Jar

O= Other: _____

Bottle Preservation Type: T= Thiosulfate,

TZ= Trizma: _____

Matrix Types: AQ= Aqueous, DW= Drinking Water, EF= Effluent, PP= Pulp/Paper, SD= Sediment,

SL= Sludge, SO= Soil, WW= Wastewater, B= Blood/Serum, O= Other: _____

EXACT COPY OF ORIGINAL

Init BAB 07/23/18

CHAIN OF CUSTODY

For Laboratory Use Only

 Work Order #: 1800362 Temp: 0.0 °C
 Storage ID: WR-2 Storage Secured: Yes ☒ No ☐
Project ID: NASWI Area 6PO#: 695610.05, FI, FS Sampler: David Butler
(name)
 TAT (check one): Standard: ☐ 21 days
☐ 14 days ☒ 7 days Specify: _____
 Rush (surcharge may apply)

 Invoice to: Name Heather Perry Company CH2M Address 2525 Airpark Drive City Redding State CA Ph# 530-229-3276 Fax# _____
 Relinquished by (printed name and signature) Eric Cuthbert Date 2-22-18 Time 0900 Received by (printed name and signature) B Benedict Date 02/23/18 Time 0940

 Relinquished by (printed name and signature) Eric Cuthbert Date 2-22-18 Time 0900 Received by (printed name and signature) B Benedict Date 02/23/18 Time 0940

 SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 * Fax (916) 673-0106
ATTN: Sample ReceivingMethod of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Mod. EPA Method 537

EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Full List of 28	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Comments
WI-A06-RWITP-0218	2/20/18	1345	Area 6	2	P	DW									
WI-A06-FB02-022018	2/20/18	1350		1	P	DW									
* WI-A06-6-DW-38A-0218	2/20/18	1455		2	P	AQ			X						
* WI-A06-EB01-022018	2/20/18	1700		2	P	AQ			X						
* WI-A06-6-5-27-0218	2/21/18	1115		2	P	AQ			X						
* WI-A06-6-5-28-0218	2/21/18	1115		2	P	AQ			X						
* WI-A06-FB01-022118	2/21/18	1500		2	P	AQ			X						
* WI-A06-MW-01-0218	2/21/18	1510		2	P	AQ			X						
* WI-A06-EB01-022118	2/21/18	1650		2	P	AQ			X						

Special Instructions/Comments:

* WO 1800361

SEND DOCUMENTATION AND RESULTS TO:

 Name: Tiffany Hill
 Company: CH2M
 Address: 1100 NE Circle Blvd Suite 300
 City: Corvallis State: OR Zip: 97330
 Phone: 541-268-3109 Fax: _____
 Email: tiffany.hill@ch2m.com

Container Types: P= HDPE, PJ= HDPE Jar

O = Other: _____

Bottle Preservation Type: T = Thiosulfate,

TZ = Trizma: _____

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

Vista Work Order #: 1800362 TAT _____

Samples Arrival:	Date/Time 02/23/18 0935	Initials: UBB	Location: WR-2
			Shelf/Rack: NA
Logged In:	Date/Time 02/23/18 1344	Initials: UBB	Location: WR-2
			Shelf/Rack: B5
Delivered By:	☒ FedEx	☐ UPS	☐ On Trac
	☐ GSO	☐ DHL	☐ Hand Delivered
Preservation:	☒ Ice	☐ Blue Ice	☐ Dry Ice
	☐ None		
Temp °C: 0.1 (uncorrected)	Time: 0939		Thermometer ID: IR-4
Temp °C: 0.0 (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 # 7898 3562 1417	✓		
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 ₂ S ₂ O ₃ ☒ Trizma ☐ None ☐	☒ Yes	☐ No	☐ NA
Shipping Container	☒ Vista ☐ Client ☐ Retain ☐	☐ Return	☐ Dispose	

Comments:

EXTRACTION INFORMATION

Process Sheet
Workorder: 1800362

PRIORITY

Prep Expiration: 2018-Mar-06
Client: CH2M Hill

Workorder Due: 05-Mar-18 00:00

TAT: 10

Method: 537 PFAS DW DoD Unmodified
Matrix: Aqueous

Prep Batch: B8B0160

Version: 14 Analytes
DoD: DoD QSM 5.1

Prep Data Entered: 3.2.18 FR
Date and Initials

Initial Sequence: S8C0006

LabSampleID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1800362-01	✓A	✓	✓	WI-A06-RW17-0218		WR-2 B-5	HDPE Bottle, 250 mL
1800362-02	↓	✓	✓	WI-A06-RW17P-0218		WR-2 B-5	HDPE Bottle, 250 mL
1800362-03	↓	✓	✓	WI-A06-FB02-022018		WR-2 B-5	HDPE Bottle, 250 mL

Pre-Prep Check Out: HB 2/27/18

Pre-Prep Check In: NA
HC 2-27-18

Prep Check Out: KC 3/1/18

Prep Check In: NA

Prep Reconciled Initials/Date: HB 2/27/18

Spike Reconciled Initials/Date: KC 3/1/18

VialBoxID: DIB

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8B0160

Chemist: KCPrep Date/Time: 26-Feb-18 16:18

Prepared using: LCMS - SPE Extraction-LCMS

3/1/18 8:30
KCBalanceID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8B0160-BLK1 (A)	NA	NA	(0.250)	KC FR 3/1/18	KC FR 3/1/18	KC FR 3/1/18
☐	B8B0160-BS1	↓	↓	(0.250)	↓	↓	↓
☐	B8B0160-MS1 1800363-21	311.21	27.50	0.28371	↓	↓	↓
☐	B8B0160-MSD1 1800363-21	311.42	28.09	0.28333	↓	↓	↓
☐	1800362-01	305.34	27.31	0.27803	↓	↓	↓
☐	1800362-02	304.66	27.54	0.27707	↓	↓	↓
☐	1800362-03	293.74	26.98	0.26676	↓	↓	↓
☐	1800363-11	305.73	27.10	0.27863	↓	↓	↓
☐	1800363-12	288.22	27.54	0.26068	↓	↓	↓
☐	1800363-13	282.17	27.08	0.25509	↓	↓	↓
☐	1800363-14	280.66	27.52	0.25314	↓	↓	↓
☐	1800363-15	303.58	27.56	0.27602	↓	↓	↓
☐	1800363-16	308.71	27.63	0.28108	↓	↓	↓
☐	1800363-17	283.54	28.02	0.25552	↓	↓	↓
☐	1800363-18	293.39	27.66	0.26573	↓	↓	↓
☐	1800363-19	313.69	28.02	0.28567	↓	↓	↓

SS/IS:

NS:

IS/RS:

SPE Chem:

Lot#:

Ele SOLV:

Lot#:

Final Volume(s)

Notes:

18B0501 KC 3/1/18
~~B8B0501~~, 20µL (V2)
 17L2901, 20µL (V2)
 18B0502, 20µL (V2)

Strata-X 33µm 500mg
 517-005658
 MeOH
 J8064809
 1mL

(A) 1.25g Trizma added to QCs. HB 2/27/18

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8B0160

Chemist: KC

Prep Date/Time: 26-Feb-18 16:18

✓ 3/1/18 8:30

Prepared using: LCMS - SPE Extraction-LCMS

Balance ID: HRMS-8							
Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1800363-20	284.48	27.54	0.25694	KC 7R 3/1/18	KC 7R 3/1/18	KC 7R 3/1/18
☐	1800363-21	312.29	28.20	0.28409	↓	↓	↓
☐	1800363-22	283.24	27.68	0.25556	↓	↓	↓

SS/IS: 18B0501 KC 3/1/18 ~~888B880501, 20 µL (V2)~~ NS: 17L2901, 20 µL (V2) IS/RS: 18B0502, 20 µL (V2)	SPE Chem: Strata-X 33 µm 500mg Lot#: S17-005658 Ele SOLV: MeOH Lot#: J8064809 Final Volume(s): 1 mL	Notes:
--	---	--------

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

Batch: B8B0160

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1800362-01	0.27803 -	NA	NA	1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800362-02	0.27707 -	T	T	1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800362-03	0.26676 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-11	0.27863 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-12	0.26068 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-13	0.25509 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-14	0.25314 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-15	0.27602 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-16	0.28108 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-17	0.25552 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-18	0.26573 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-19	0.28567 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-20	0.25694 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-21	0.28409 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
1800363-22	0.25556 -			1000	01-Mar-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmod
B8B0160-BLK1	0.25 -			1000	01-Mar-18 08:30	KC				QC
B8B0160-BS1	0.25 -			1000	01-Mar-18 08:30	KC	17L2901 -	20 -		QC
B8B0160-MS1	0.28371 -			1000	01-Mar-18 08:30	KC	17L2901 -	20 -		QC
B8B0160-MSD1	0.28333 -			1000	01-Mar-18 08:30	KC	17L2901 -	20 -		QC

7R 3-2-18

SAMPLE DATA –EPA METHOD 537

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-7.qld

Last Altered: Tuesday, March 06, 2018 14:47:58 Pacific Standard Time

Printed: Tuesday, March 06, 2018 14:48:38 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-7, Date: 02-Mar-2018, Time: 15:43:11, ID: B8B0160-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	1.68e0	1.69e4	0.2500		3.01	2.99	0.00285	0.0156	
2	2 PFHxA	313.2 > 268.9	8.06e1	1.14e4	0.2500		3.35	3.37	0.0706	0.510	
3	3 PFHpA	363 > 318.9	3.23e1	1.14e4	0.2500		3.86	3.87	0.0282	0.120	
4	4 PFHxS	398.9 > 79.6	1.01e0	1.69e4	0.2500		4.00	4.00	0.00173	0.00986	
5	5 PFOA	413 > 368.7	1.69e2	1.14e4	0.2500		4.29	4.29	0.148	0.706	
6	6 PFNA	463 > 418.8	8.48e0	1.14e4	0.2500		4.64	4.65	0.00742	0.0292	
7	7 PFOS	499 > 79.9	1.76e1	1.69e4	0.2500		4.71	4.71	0.0299	0.125	
8	8 PFDA	513 > 468.8	8.94e1	1.14e4	0.2500		4.86	4.95	0.0782	0.282	
9	9 N-MeFOSAA	570.1 > 419.0		1.54e4	0.2500		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.54e4	0.2500		5.19				
11	11 PFUnA	563 > 518.9		1.14e4	0.2500		5.12				
12	12 PFDoA	612.9 > 318.8		1.14e4	0.2500		5.32				
13	13 PFTrDA	662.9 > 618.9	1.62e1	1.14e4	0.2500		5.55	5.62	0.0142	0.0414	
14	14 PFTeDA	712.9 > 668.8	1.49e1	1.14e4	0.2500		5.72	5.78	0.0131	0.0419	
15	15 13C2-PFHxA	315 > 269.8	8.00e3	1.14e4	0.2500	0.731	3.44	3.37	7.00	38.3	95.7
16	16 13C2-PFDA	515.1 > 469.9	9.19e3	1.14e4	0.2500	0.910	4.89	4.95	8.04	35.3	88.4
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.49e4	1.54e4	0.2500	1.049	5.07	5.19	38.6	147	92.0
18	18 13C2-PFOA	414.9 > 369.7	1.14e4	1.14e4	0.2500	1.000	4.41	4.29	10.0	40.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.69e4	1.69e4	0.2500	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.54e4	1.54e4	0.2500	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-7.qld

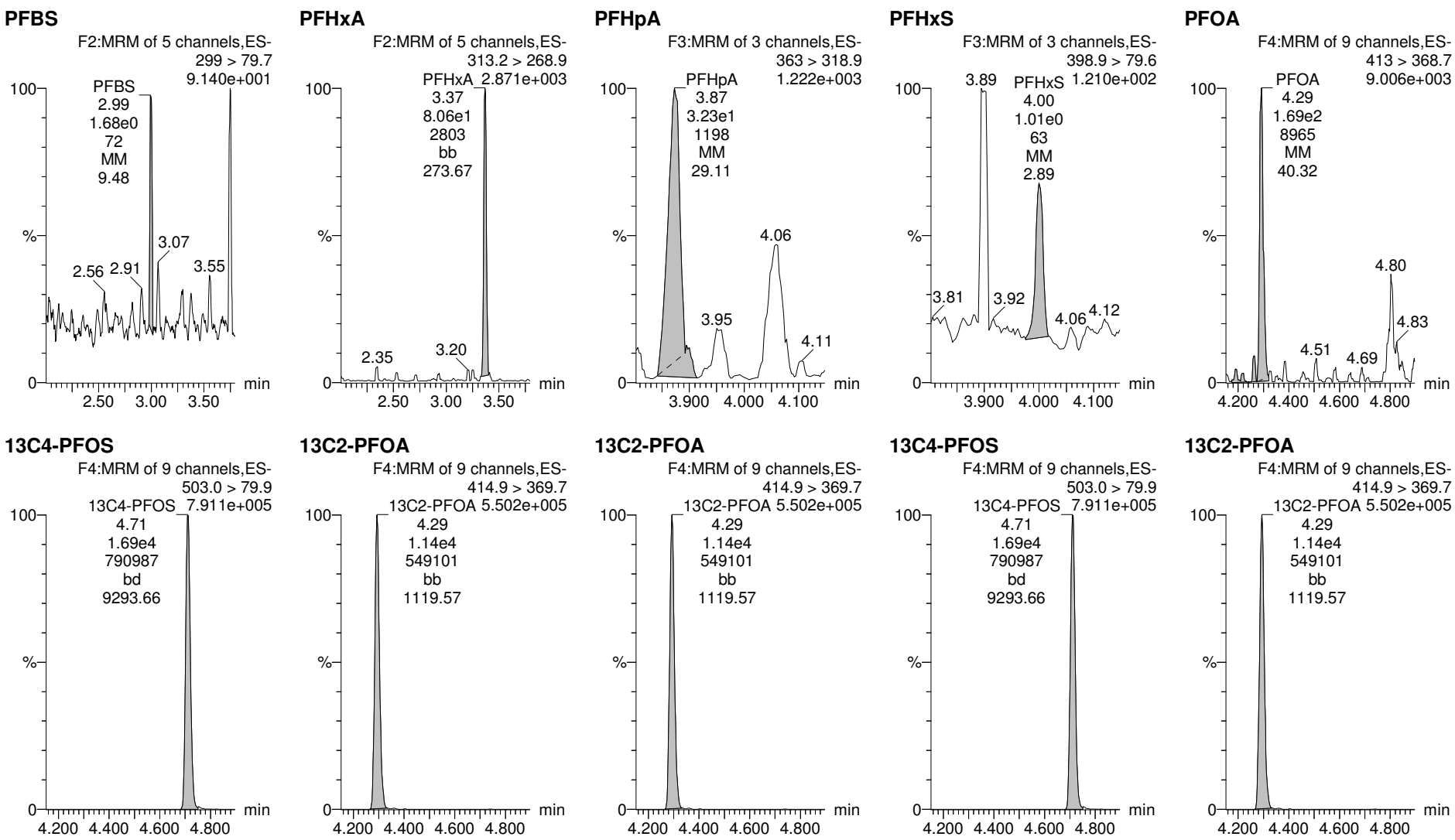
Last Altered: Tuesday, March 06, 2018 14:47:58 Pacific Standard Time

Printed: Tuesday, March 06, 2018 14:48:38 Pacific Standard Time

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Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

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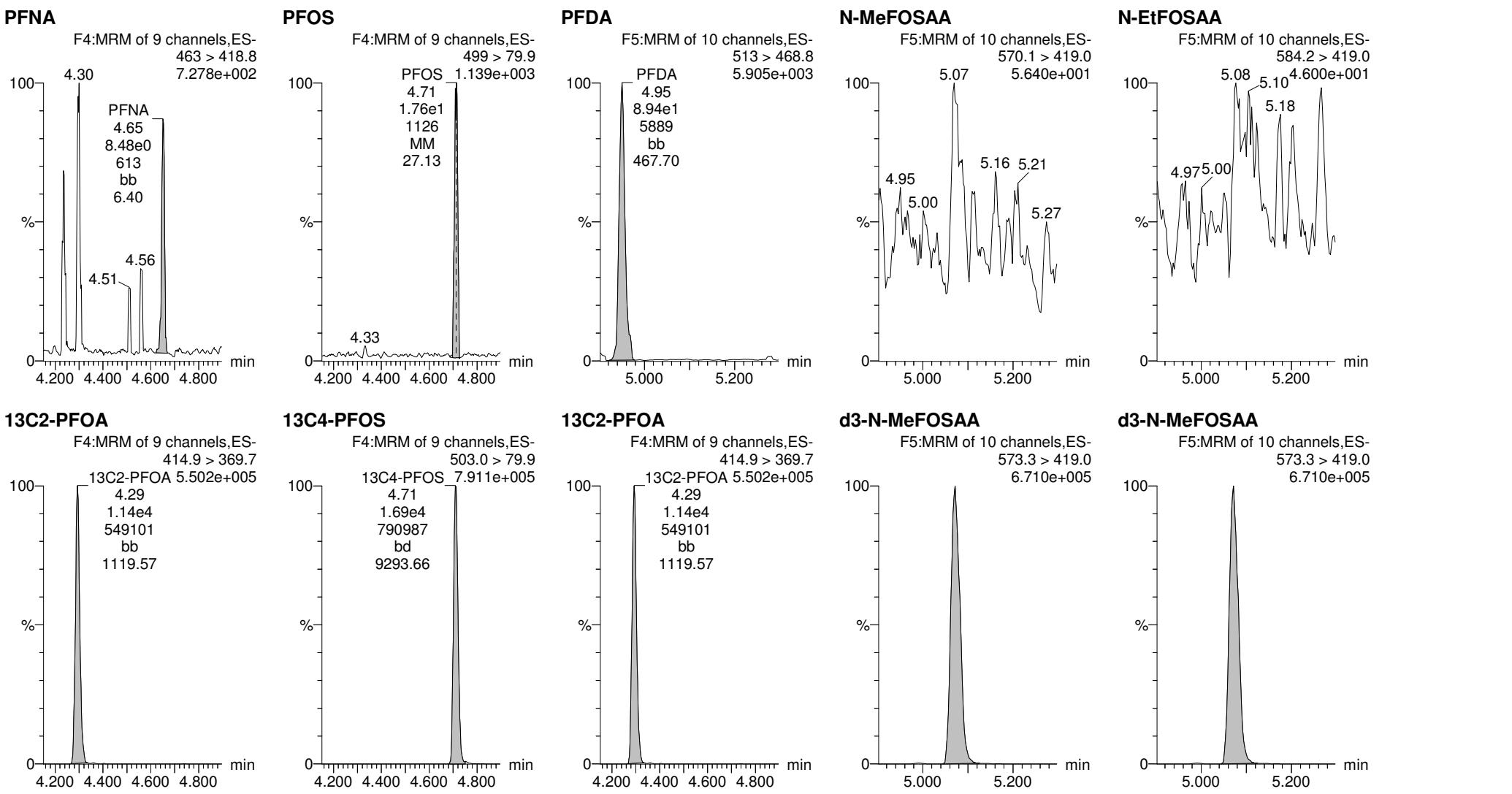


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Printed: Tuesday, March 06, 2018 14:48:38 Pacific Standard Time

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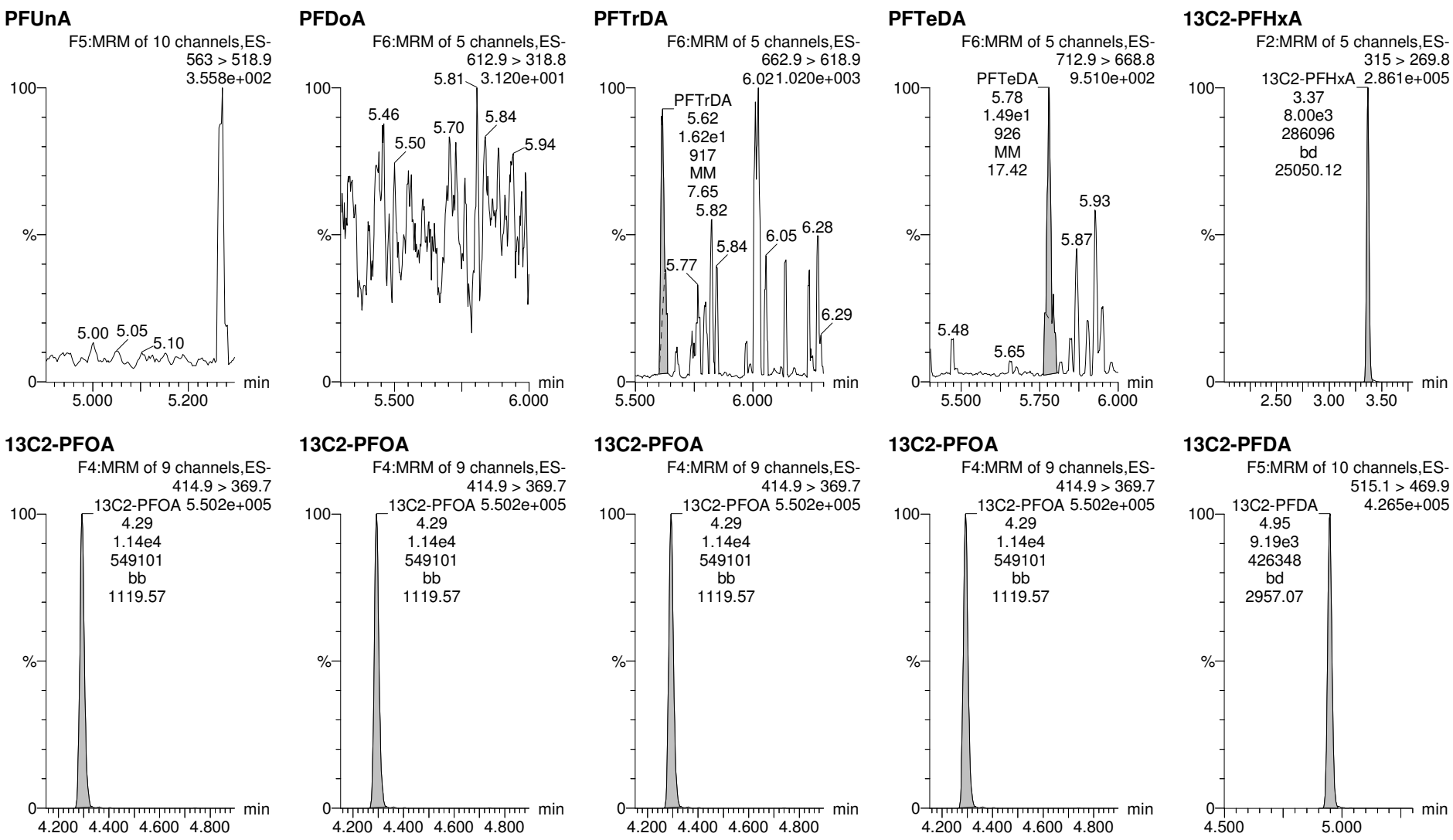


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Printed: Tuesday, March 06, 2018 14:48:38 Pacific Standard Time

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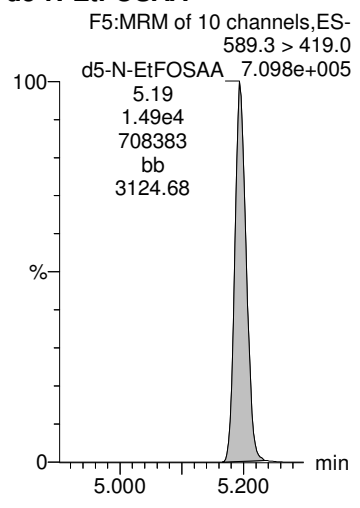
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Printed: Tuesday, March 06, 2018 14:48:38 Pacific Standard Time

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d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-4.qld

Last Altered: Monday, March 05, 2018 10:55:43 Pacific Standard Time

Printed: Monday, March 05, 2018 10:55:54 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-4, Date: 02-Mar-2018, Time: 15:05:59, ID: B8B0160-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	7.44e3	1.69e4	0.2500		3.01	3.00	12.6	69.0	97.5
2	2 PFHxA	313.2 > 268.9	1.10e4	1.05e4	0.2500		3.35	3.37	10.4	75.1	93.9
3	3 PFHpA	363 > 318.9	2.06e4	1.05e4	0.2500		3.86	3.87	19.6	83.2	104.1
4	4 PFHxS	398.9 > 79.6	8.23e3	1.69e4	0.2500		4.00	3.99	14.0	79.8	109.4
5	5 PFOA	413 > 368.7	1.77e4	1.05e4	0.2500		4.29	4.29	16.8	80.2	100.2
6	6 PFNA	463 > 418.8	2.17e4	1.05e4	0.2500		4.63	4.65	20.6	81.0	101.3
7	7 PFOS	499 > 79.9	1.06e4	1.69e4	0.2500		4.71	4.71	18.0	74.9	101.2
8	8 PFDA	513 > 468.8	2.23e4	1.05e4	0.2500		4.86	4.95	21.2	78.5	98.2
9	9 N-MeFOSAA	570.1 > 419.0	1.14e4	1.59e4	0.2500		5.01	5.07	28.6	84.0	105.0
10	10 N-EtFOSAA	584.2 > 419.0	7.97e3	1.59e4	0.2500		5.19	5.20	20.1	75.9	94.8
11	11 PFUnA	563 > 518.9	2.00e4	1.05e4	0.2500		5.12	5.21	19.0	75.7	94.6
12	12 PFDoA	612.9 > 318.8	2.96e3	1.05e4	0.2500		5.32	5.42	2.80	70.8	88.5
13	13 PFTTrDA	662.9 > 618.9	2.62e4	1.05e4	0.2500		5.55	5.62	24.8	72.2	90.3
14	14 PFTeDA	712.9 > 668.8	2.39e4	1.05e4	0.2500		5.72	5.78	22.7	72.6	90.7
15	15 13C2-PFHxA	315 > 269.8	8.03e3	1.05e4	0.2500	0.731	3.44	3.37	7.62	41.6	104.1
16	16 13C2-PFDA	515.1 > 469.9	8.59e3	1.05e4	0.2500	0.910	4.89	4.95	8.14	35.8	89.5
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.32e4	1.59e4	0.2500	1.049	5.07	5.19	33.3	127	79.4
18	18 13C2-PFOA	414.9 > 369.7	1.05e4	1.05e4	0.2500	1.000	4.41	4.29	10.0	40.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.69e4	1.69e4	0.2500	1.000	4.81	4.71	28.7	115	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.59e4	1.59e4	0.2500	1.000	5.16	5.07	40.0	160	100.0

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-4.qld

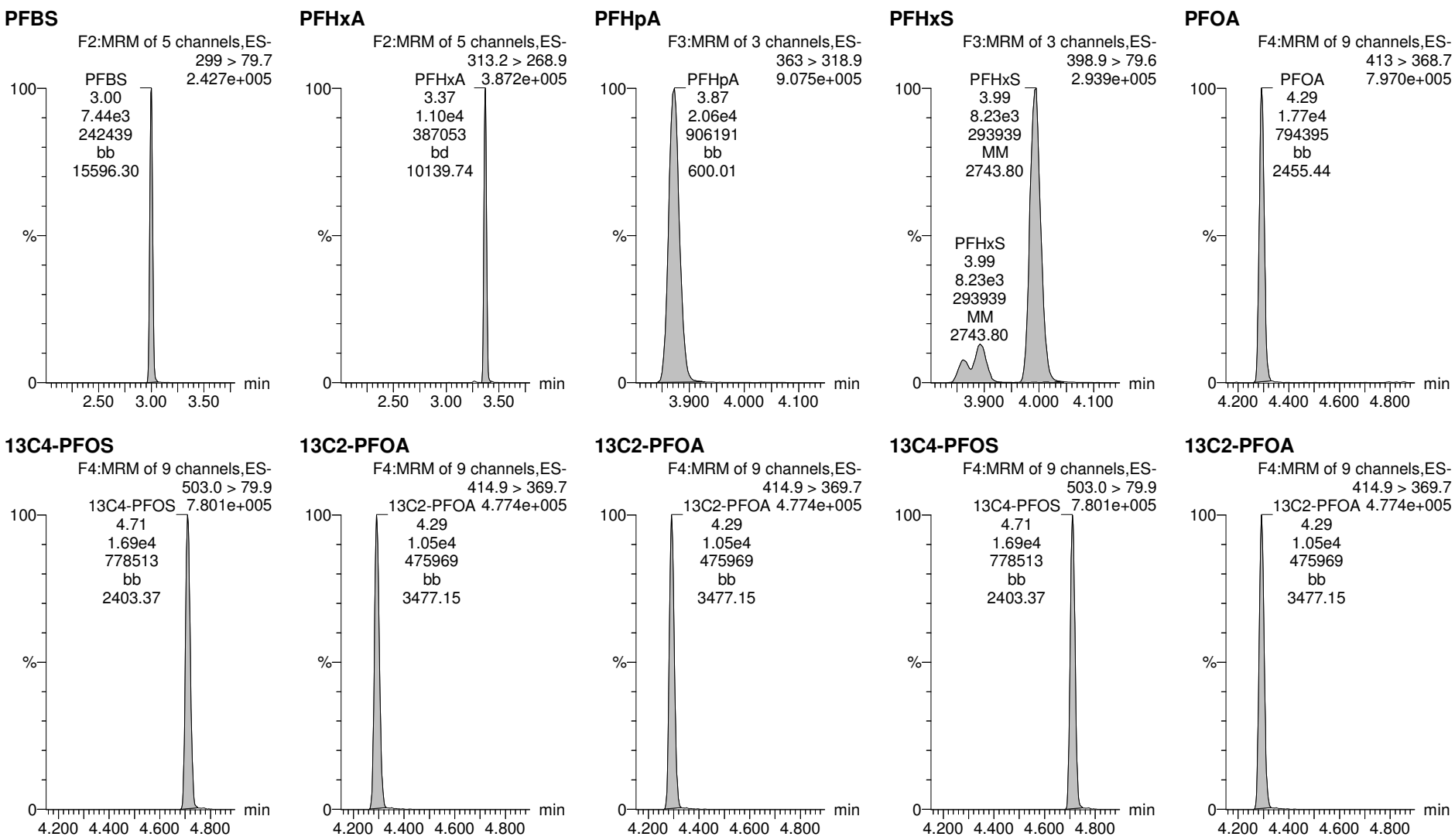
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Printed: Monday, March 05, 2018 10:55:54 Pacific Standard Time

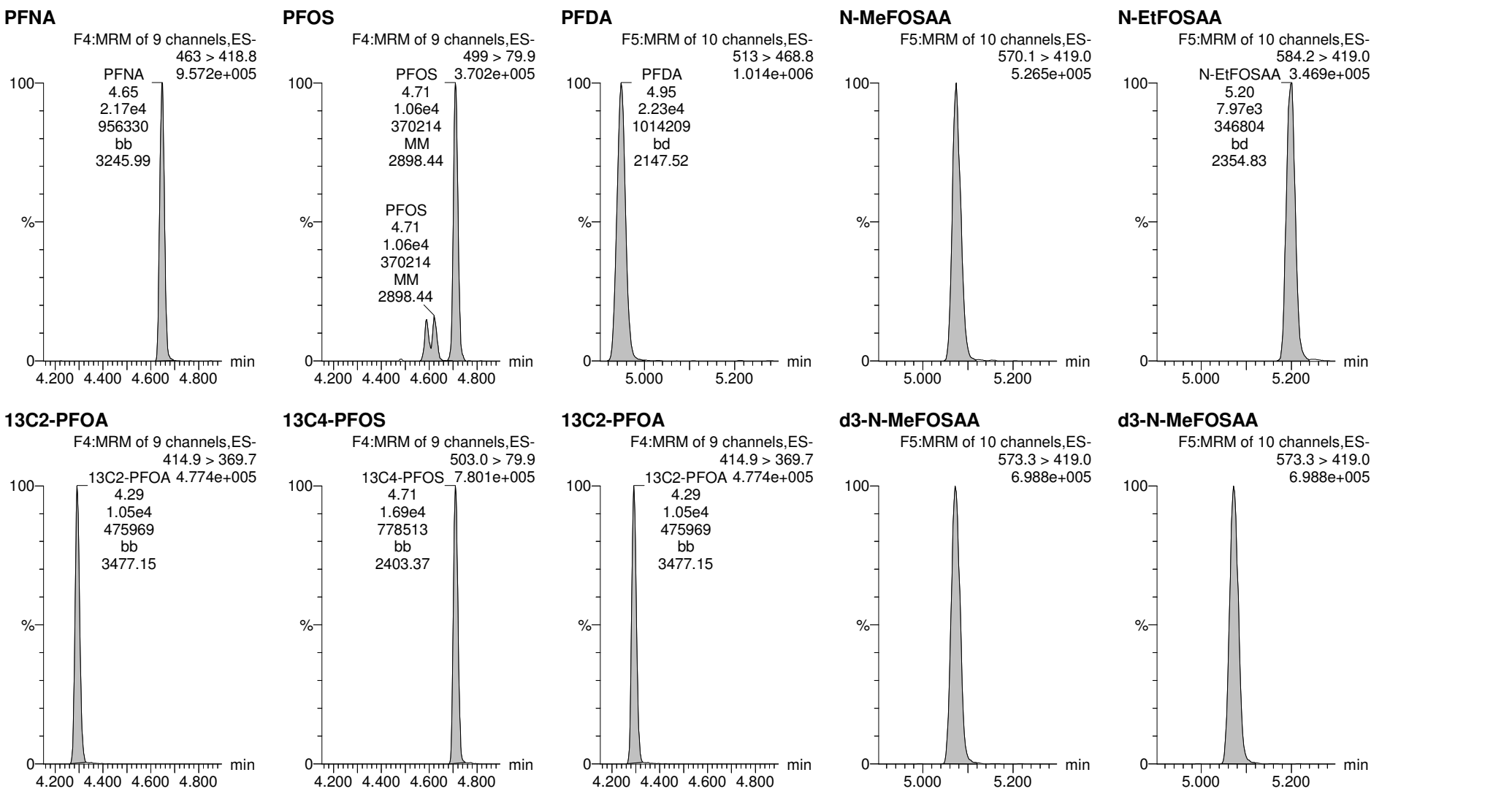
Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-4, Date: 02-Mar-2018, Time: 15:05:59, ID: B8B0160-BS1 LFB 0.25, Description: LFB



Name: 180302G2-4, Date: 02-Mar-2018, Time: 15:05:59, ID: B8B0160-BS1 LFB 0.25, Description: LFB

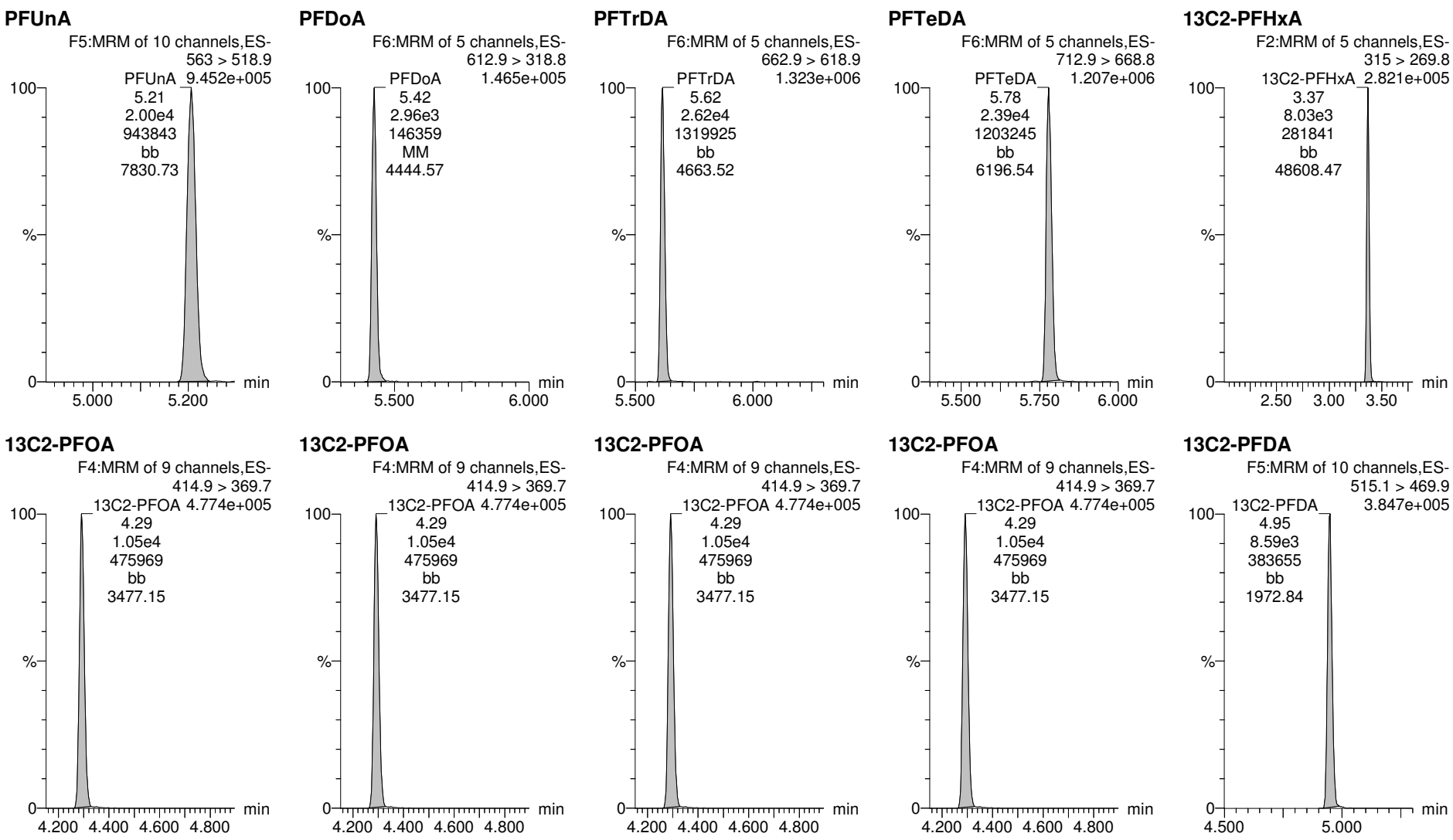


Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-4.qld

Last Altered: Monday, March 05, 2018 10:55:43 Pacific Standard Time

Printed: Monday, March 05, 2018 10:55:54 Pacific Standard Time

Name: 180302G2-4, Date: 02-Mar-2018, Time: 15:05:59, ID: B8B0160-BS1 LFB 0.25, Description: LFB



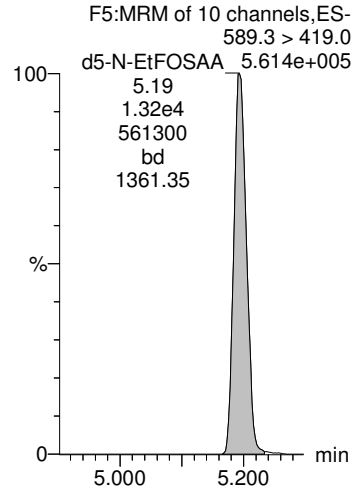
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Printed: Monday, March 05, 2018 10:55:54 Pacific Standard Time

Name: 180302G2-4, Date: 02-Mar-2018, Time: 15:05:59, ID: B8B0160-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-8.qld

Last Altered: Tuesday, March 06, 2018 11:43:11 Pacific Standard Time

Printed: Tuesday, March 06, 2018 13:59:18 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-8, Date: 02-Mar-2018, Time: 15:55:37, ID: 1800362-01 WI-A06-RW17-0218 0.27803, Description: WI-A06-RW17-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.78e4	0.2780		3.01				
2	2 PFHxA	313.2 > 268.9	8.19e1	1.15e4	0.2780		3.35	3.36	0.0714	0.464	
3	3 PFHpA	363 > 318.9	2.61e1	1.15e4	0.2780		3.86	3.87	0.0227	0.0869	
4	4 PFHxS	398.9 > 79.6	2.92e0	1.78e4	0.2780		4.00	3.95	0.00470	0.0242	
5	5 PFOA	413 > 368.7	1.95e2	1.15e4	0.2780		4.29	4.29	0.170	0.729	
6	6 PFNA	463 > 418.8		1.15e4	0.2780		4.64				
7	7 PFOS	499 > 79.9	4.74e-1	1.78e4	0.2780		4.71	4.71	0.000762	0.00285	
8	8 PFDA	513 > 468.8	9.11e1	1.15e4	0.2780		4.86	4.95	0.0794	0.257	
9	9 N-MeFOSAA	570.1 > 419.0		1.40e4	0.2780		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.40e4	0.2780		5.19				
11	11 PFUnA	563 > 518.9	6.86e0	1.15e4	0.2780		5.12	5.21	0.00598	0.0214	
12	12 PFDoA	612.9 > 318.8		1.15e4	0.2780		5.32				
13	13 PFTrDA	662.9 > 618.9	9.02e0	1.15e4	0.2780		5.55	5.62	0.00786	0.0206	
14	14 PFTeDA	712.9 > 668.8	1.76e1	1.15e4	0.2780		5.72	5.78	0.0153	0.0441	
15	15 13C2-PFHxA	315 > 269.8	8.13e3	1.15e4	0.2780	0.731	3.44	3.37	7.09	34.9	96.9
16	16 13C2-PFDA	515.1 > 469.9	8.80e3	1.15e4	0.2780	0.910	4.89	4.95	7.67	30.3	84.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.49e4	1.40e4	0.2780	1.049	5.07	5.20	42.6	146	101.4
18	18 13C2-PFOA	414.9 > 369.7	1.15e4	1.15e4	0.2780	1.000	4.41	4.29	10.0	36.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.78e4	1.78e4	0.2780	1.000	4.81	4.71	28.7	103	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.40e4	1.40e4	0.2780	1.000	5.16	5.07	40.0	144	100.0

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-8.qld

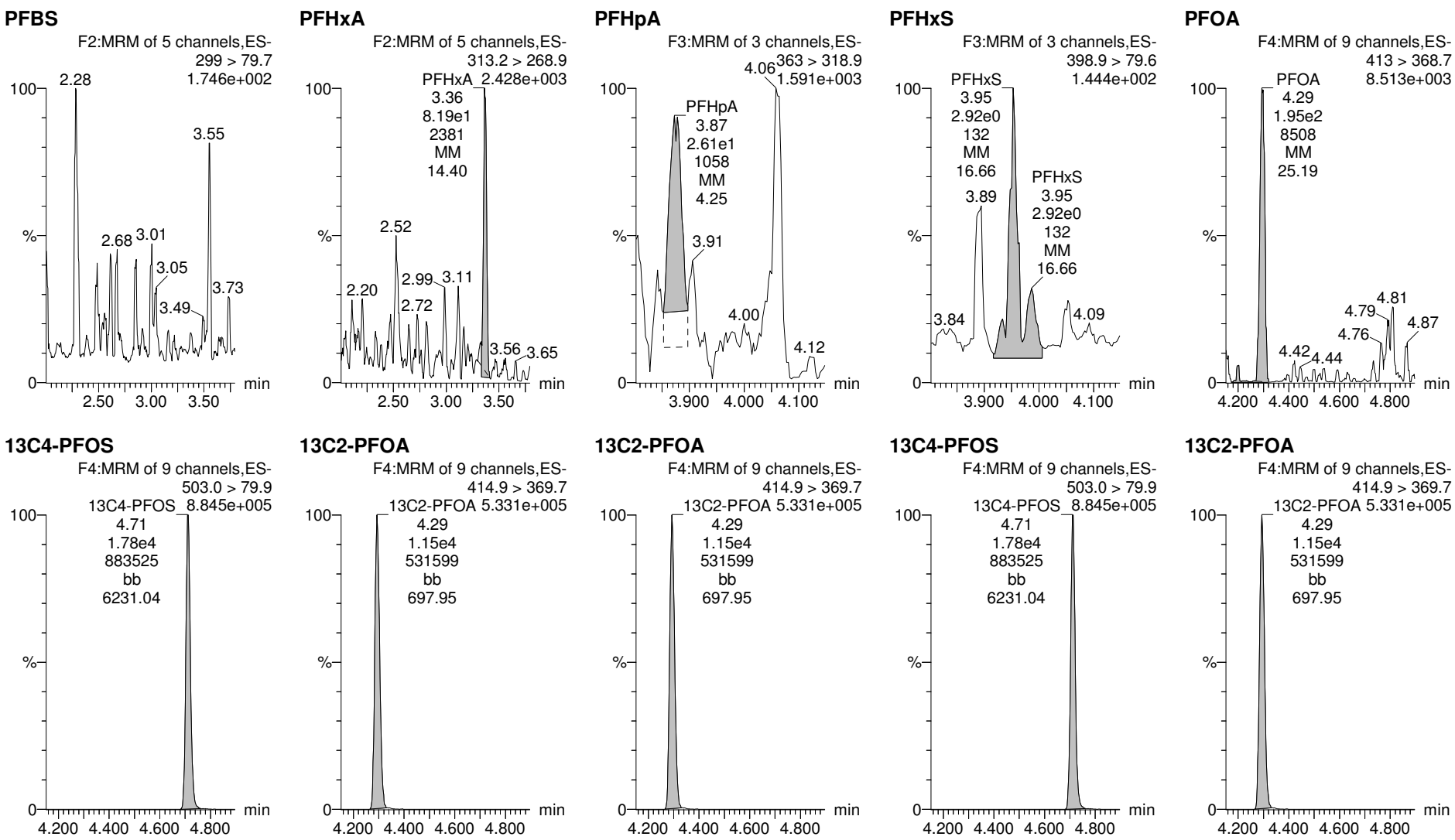
Last Altered: Tuesday, March 06, 2018 11:43:11 Pacific Standard Time

Printed: Tuesday, March 06, 2018 13:59:18 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-8, Date: 02-Mar-2018, Time: 15:55:37, ID: 1800362-01 WI-A06-RW17-0218 0.27803, Description: WI-A06-RW17-0218



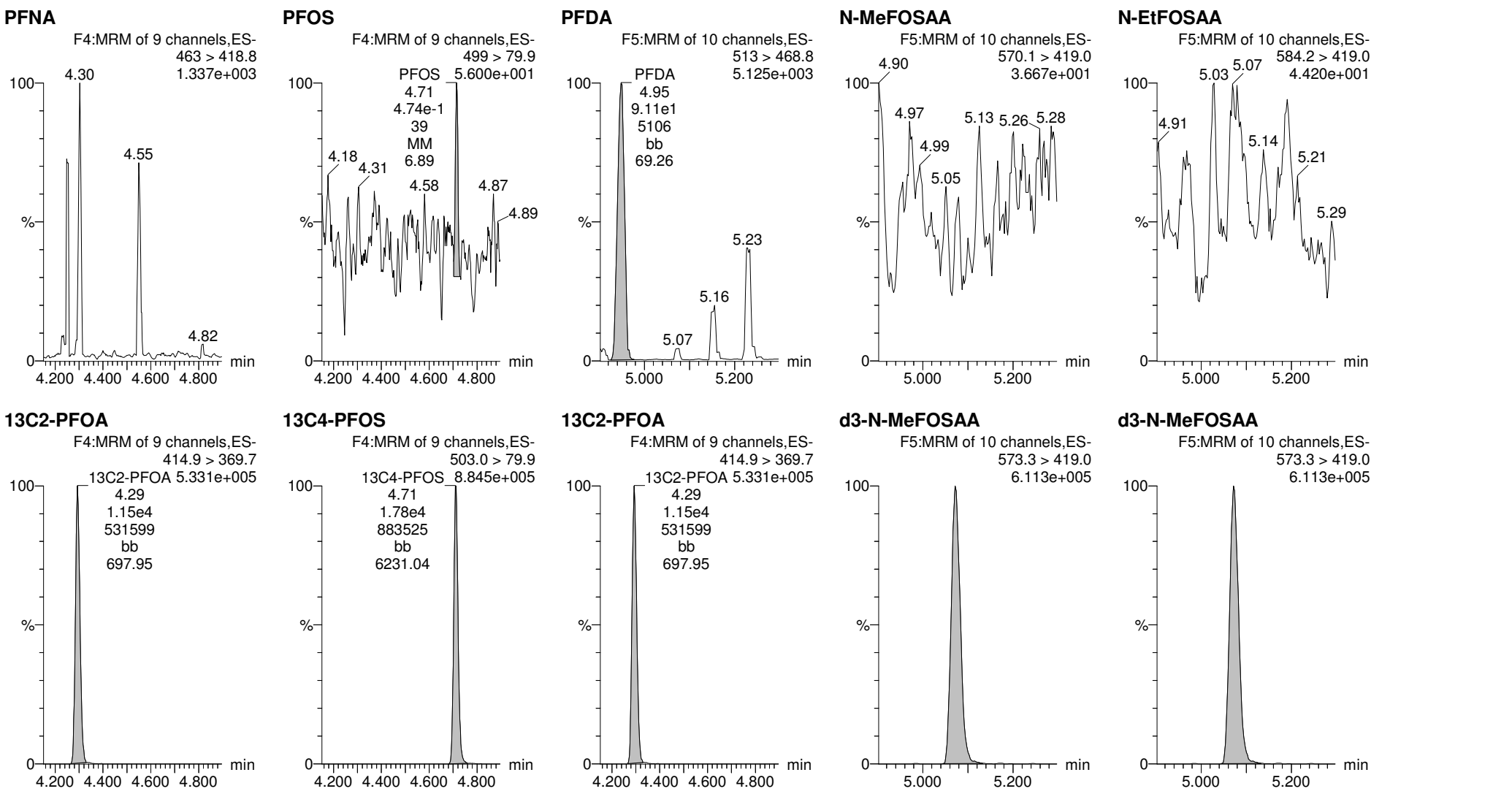
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Last Altered: Tuesday, March 06, 2018 11:43:11 Pacific Standard Time

Printed: Tuesday, March 06, 2018 13:59:18 Pacific Standard Time

Rev'd: MM 3/6/2018

Name: 180302G2-8, Date: 02-Mar-2018, Time: 15:55:37, ID: 1800362-01 WI-A06-RW17-0218 0.27803, Description: WI-A06-RW17-0218

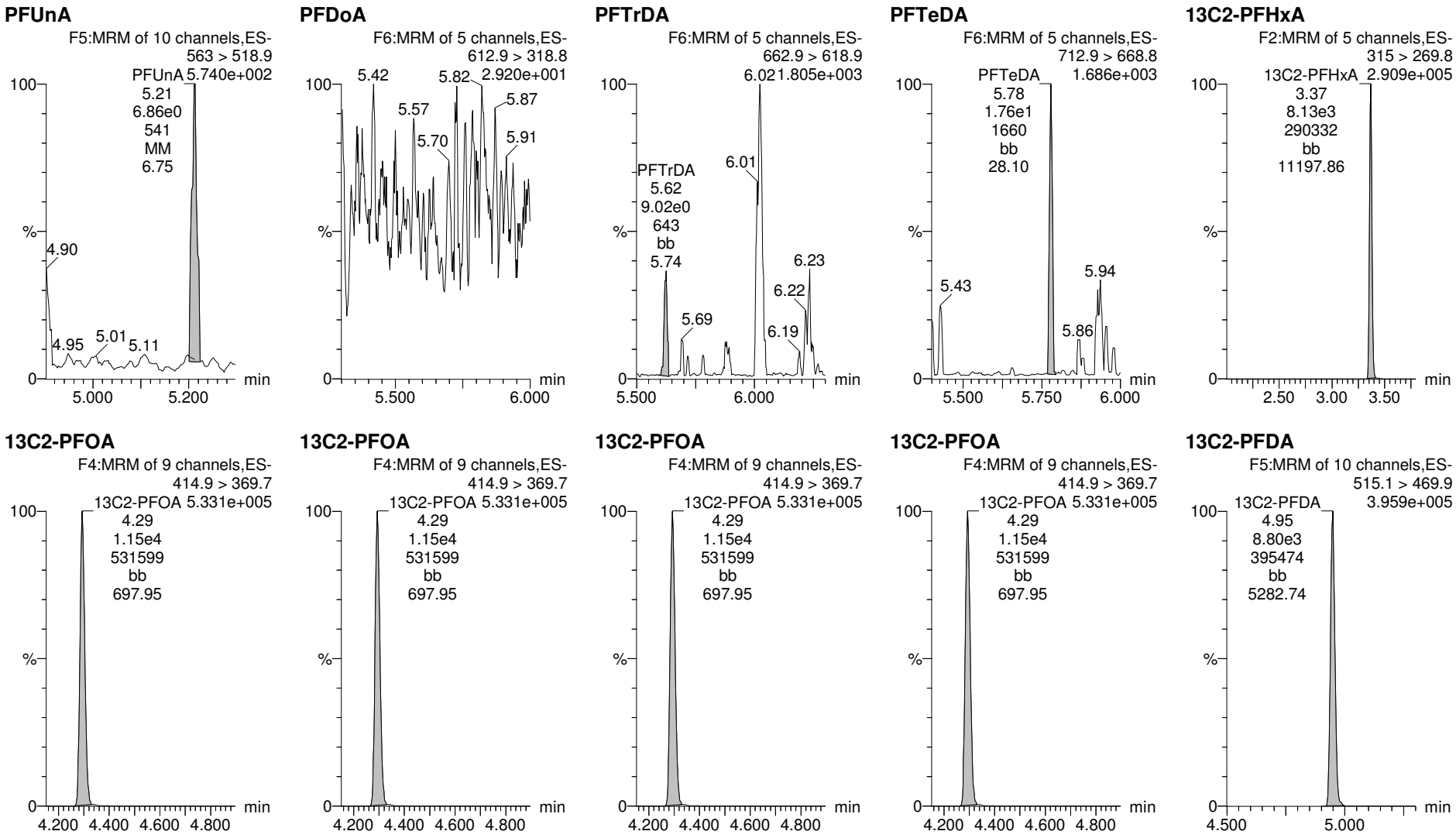


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Last Altered: Tuesday, March 06, 2018 11:43:11 Pacific Standard Time

Printed: Tuesday, March 06, 2018 13:59:18 Pacific Standard Time

Name: 180302G2-8, Date: 02-Mar-2018, Time: 15:55:37, ID: 1800362-01 WI-A06-RW17-0218 0.27803, Description: WI-A06-RW17-0218



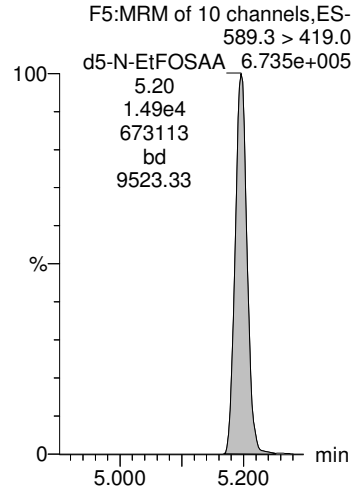
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Last Altered: Tuesday, March 06, 2018 11:43:11 Pacific Standard Time

Printed: Tuesday, March 06, 2018 13:59:18 Pacific Standard Time

Name: 180302G2-8, Date: 02-Mar-2018, Time: 15:55:37, ID: 1800362-01 WI-A06-RW17-0218 0.27803, Description: WI-A06-RW17-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-9.qld

Last Altered: Tuesday, March 06, 2018 11:52:15 Pacific Standard Time

Printed: Tuesday, March 06, 2018 11:52:49 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-9, Date: 02-Mar-2018, Time: 16:08:01, ID: 1800362-02 WI-A06-RW17P-0218 0.27707, Description: WI-A06-RW17P-0218

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.75e4	0.2771		3.02				
2	2 PFHxA	313.2 > 268.9	1.03e2	1.20e4	0.2771		3.35	3.37	0.0853	0.556	
3	3 PFHpA	363 > 318.9	3.39e1	1.20e4	0.2771		3.87	3.88	0.0282	0.108	
4	4 PFHxS	398.9 > 79.6	4.43e0	1.75e4	0.2771		4.00	4.00	0.00724	0.0374	
5	5 PFOA	413 > 368.7	1.61e2	1.20e4	0.2771		4.30	4.29	0.134	0.577	
6	6 PFNA	463 > 418.8	2.27e1	1.20e4	0.2771		4.64	4.64	0.0189	0.0670	
7	7 PFOS	499 > 79.9	1.39e0	1.75e4	0.2771		4.71	4.72	0.00228	0.00857	
8	8 PFDA	513 > 468.8	1.29e2	1.20e4	0.2771		4.87	4.95	0.107	0.347	
9	9 N-MeFOSAA	570.1 > 419.0		1.54e4	0.2771		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.54e4	0.2771		5.19				
11	11 PFUnA	563 > 518.9	6.33e0	1.20e4	0.2771		5.13	5.14	0.00527	0.0189	
12	12 PFDoA	612.9 > 318.8		1.20e4	0.2771		5.33				
13	13 PFTTrDA	662.9 > 618.9		1.20e4	0.2771		5.56				
14	14 PFTeDA	712.9 > 668.8	7.13e0	1.20e4	0.2771		5.73	5.78	0.00593	0.0171	
15	15 13C2-PFHxA	315 > 269.8	7.74e3	1.20e4	0.2771	0.731	3.45	3.37	6.44	31.8	88.1
16	16 13C2-PFDA	515.1 > 469.9	8.45e3	1.20e4	0.2771	0.910	4.90	4.95	7.03	27.9	77.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.61e4	1.54e4	0.2771	1.049	5.07	5.20	41.8	144	99.7
18	18 13C2-PFOA	414.9 > 369.7	1.20e4	1.20e4	0.2771	1.000	4.41	4.30	10.0	36.1	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.75e4	1.75e4	0.2771	1.000	4.81	4.71	28.7	104	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.54e4	1.54e4	0.2771	1.000	5.16	5.07	40.0	144	100.0

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-9.qld

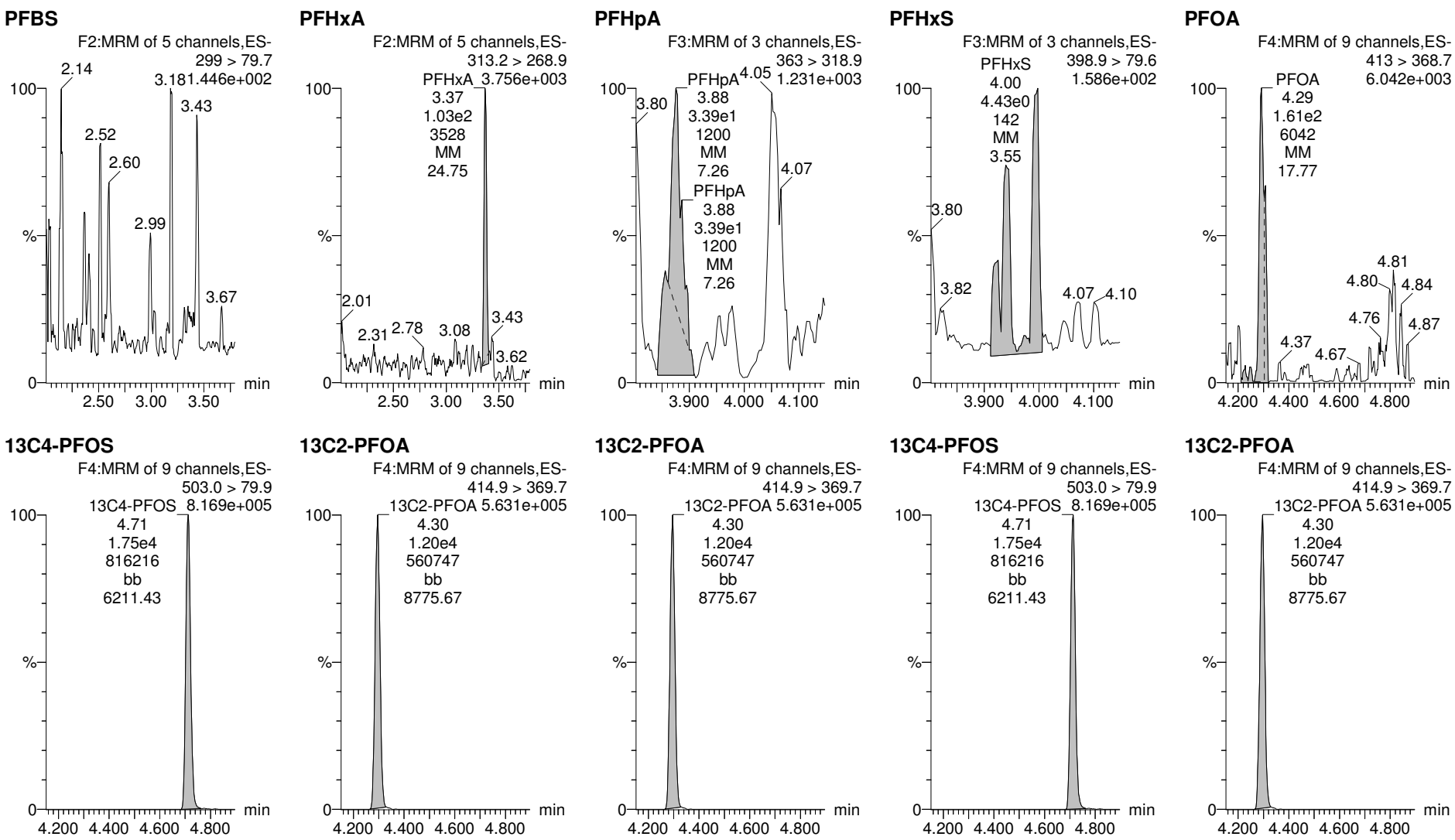
Last Altered: Tuesday, March 06, 2018 11:52:15 Pacific Standard Time

Printed: Tuesday, March 06, 2018 11:52:49 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-9, Date: 02-Mar-2018, Time: 16:08:01, ID: 1800362-02 WI-A06-RW17P-0218 0.27707, Description: WI-A06-RW17P-0218



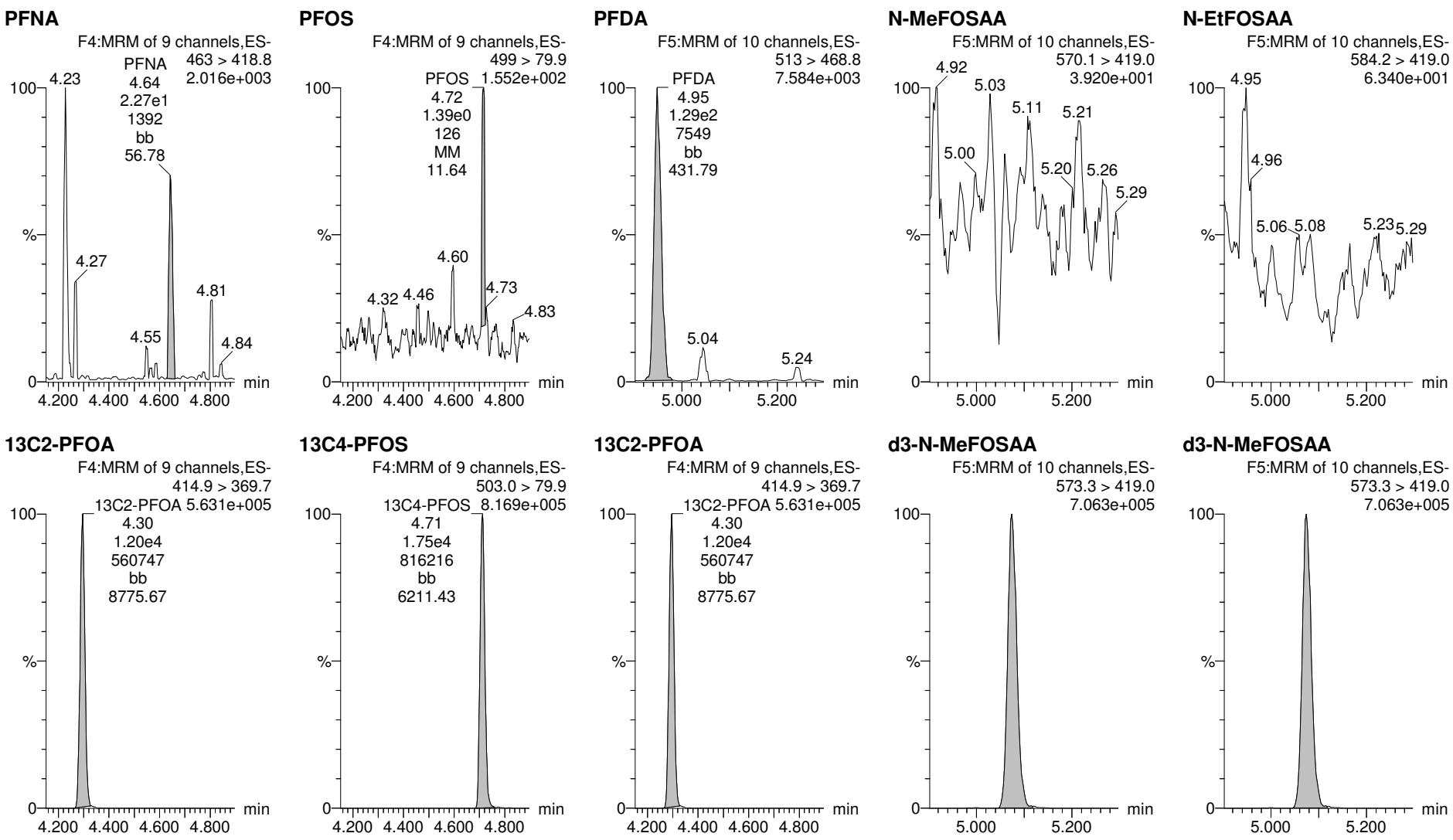
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Rev'd: MM 3/6/2018

Last Altered: Tuesday, March 06, 2018 11:52:15 Pacific Standard Time

Printed: Tuesday, March 06, 2018 11:52:49 Pacific Standard Time

Name: 180302G2-9, Date: 02-Mar-2018, Time: 16:08:01, ID: 1800362-02 WI-A06-RW17P-0218 0.27707, Description: WI-A06-RW17P-0218

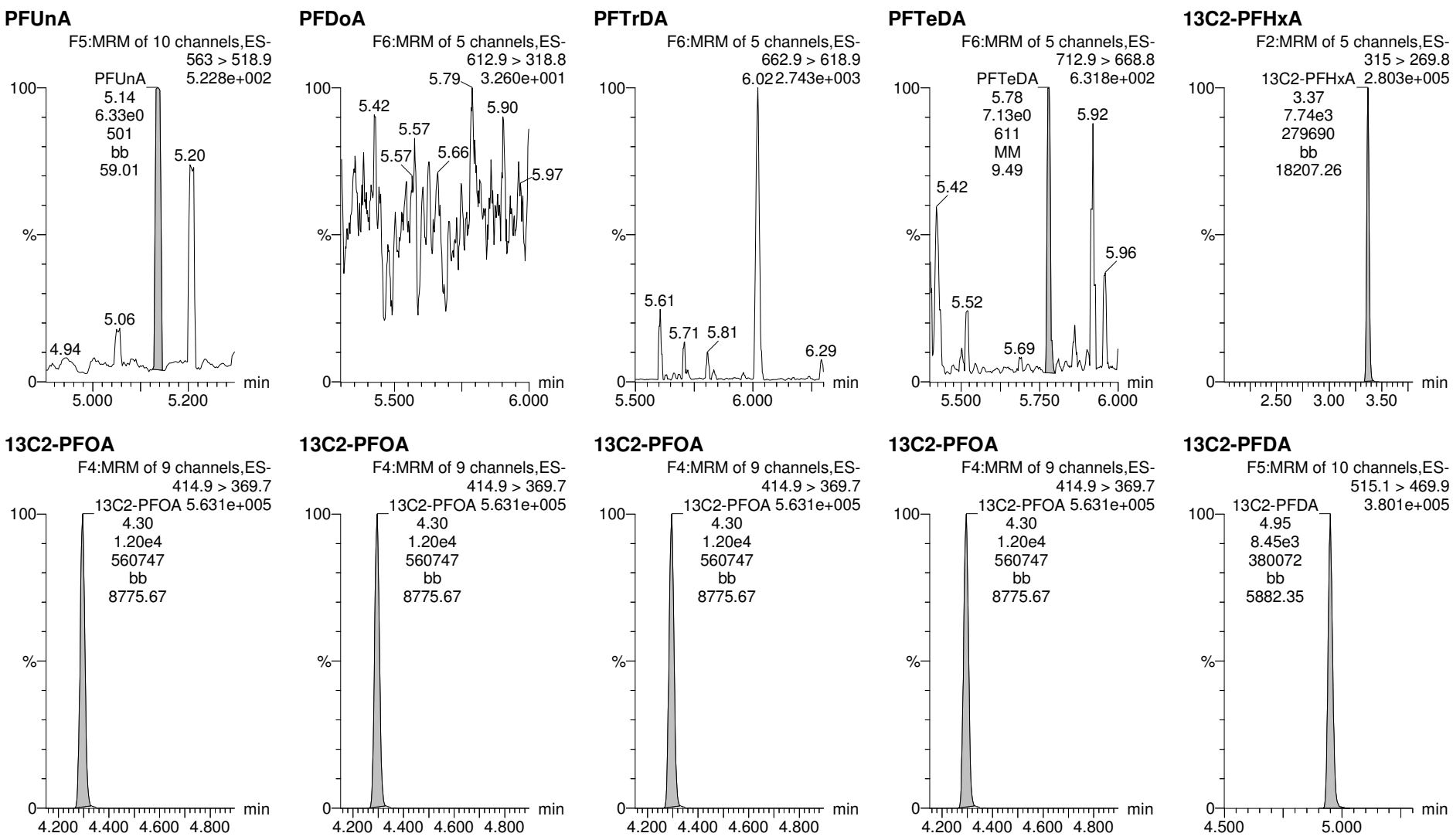


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Last Altered: Tuesday, March 06, 2018 11:52:15 Pacific Standard Time

Printed: Tuesday, March 06, 2018 11:52:49 Pacific Standard Time

Name: 180302G2-9, Date: 02-Mar-2018, Time: 16:08:01, ID: 1800362-02 WI-A06-RW17P-0218 0.27707, Description: WI-A06-RW17P-0218



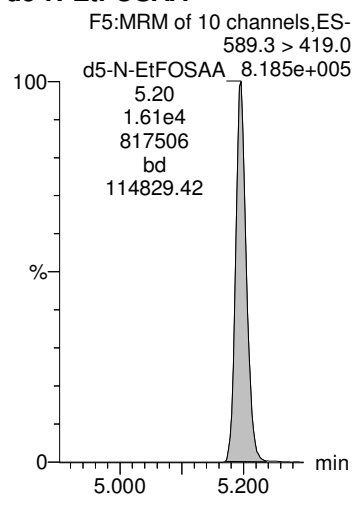
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Last Altered: Tuesday, March 06, 2018 11:52:15 Pacific Standard Time

Printed: Tuesday, March 06, 2018 11:52:49 Pacific Standard Time

Name: 180302G2-9, Date: 02-Mar-2018, Time: 16:08:01, ID: 1800362-02 WI-A06-RW17P-0218 0.27707, Description: WI-A06-RW17P-0218

d5-N-EtFOSAA



Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-10.qld

Last Altered: Tuesday, March 06, 2018 12:54:00 Pacific Standard Time

Printed: Tuesday, March 06, 2018 12:54:41 Pacific Standard Time

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-10, Date: 02-Mar-2018, Time: 16:20:27, ID: 1800362-03 WI-A06-FB02-022018 0.26676, Description: WI-A06-FB02-022018

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.77e4	0.2668		3.02				
2	2 PFHxA	313.2 > 268.9	1.22e2	1.20e4	0.2668		3.35	3.37	0.102	0.689	
3	3 PFHpA	363 > 318.9	2.98e1	1.20e4	0.2668		3.86	3.88	0.0248	0.0989	
4	4 PFHxS	398.9 > 79.6	2.33e0	1.77e4	0.2668		4.00	3.99	0.00378	0.0202	
5	5 PFOA	413 > 368.7	1.11e2	1.20e4	0.2668		4.29	4.30	0.0922	0.413	
6	6 PFNA	463 > 418.8		1.20e4	0.2668		4.64				
7	7 PFOS	499 > 79.9		1.77e4	0.2668		4.71				
8	8 PFDA	513 > 468.8	6.77e1	1.20e4	0.2668		4.86	4.95	0.0563	0.190	
9	9 N-MeFOSAA	570.1 > 419.0		1.57e4	0.2668		5.01				
10	10 N-EtFOSAA	584.2 > 419.0		1.57e4	0.2668		5.19				
11	11 PFUnA	563 > 518.9	1.28e1	1.20e4	0.2668		5.12	5.20	0.0106	0.0396	
12	12 PFDoA	612.9 > 318.8	1.84e0	1.20e4	0.2668		5.32	5.42	0.00153	0.0363	
13	13 PFTrDA	662.9 > 618.9		1.20e4	0.2668		5.55				
14	14 PFTeDA	712.9 > 668.8		1.20e4	0.2668		5.72				
15	15 13C2-PFHxA	315 > 269.8	8.18e3	1.20e4	0.2668	0.731	3.44	3.37	6.81	34.9	93.1
16	16 13C2-PFDA	515.1 > 469.9	9.42e3	1.20e4	0.2668	0.910	4.89	4.95	7.84	32.3	86.2
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.47e4	1.57e4	0.2668	1.049	5.07	5.19	37.4	134	89.1
18	18 13C2-PFOA	414.9 > 369.7	1.20e4	1.20e4	0.2668	1.000	4.41	4.29	10.0	37.5	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.77e4	1.77e4	0.2668	1.000	4.81	4.71	28.7	108	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.57e4	1.57e4	0.2668	1.000	5.16	5.07	40.0	150	100.0

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Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-10.qld

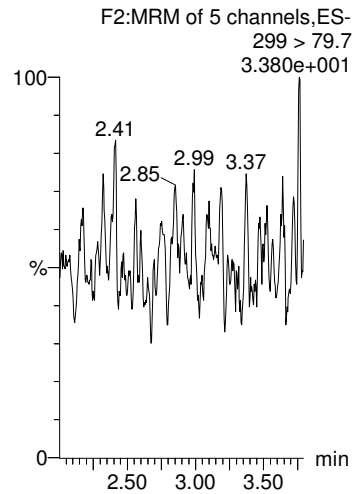
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Printed: Tuesday, March 06, 2018 12:54:41 Pacific Standard Time

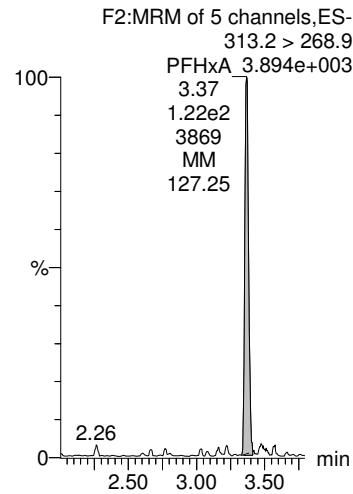
Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180302G2-10, Date: 02-Mar-2018, Time: 16:20:27, ID: 1800362-03 WI-A06-FB02-022018 0.26676, Description: WI-A06-FB02-022018

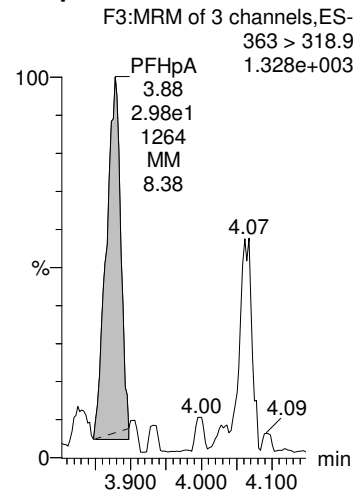
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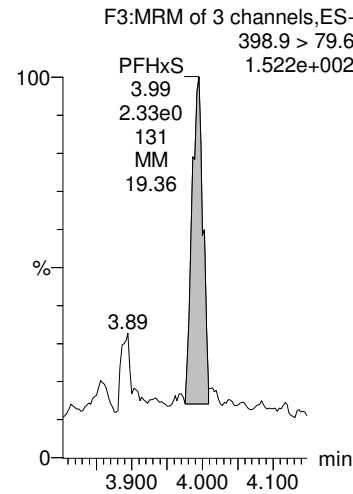
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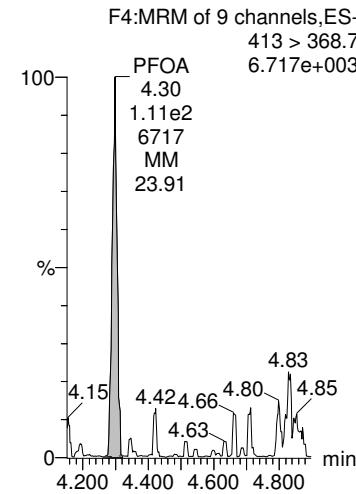
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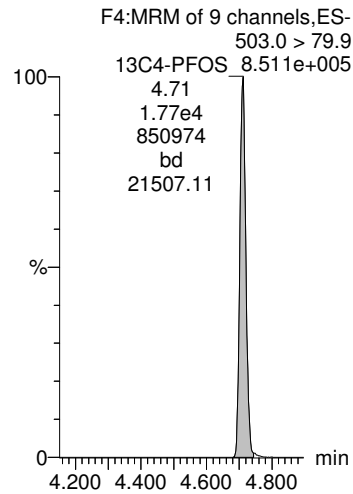
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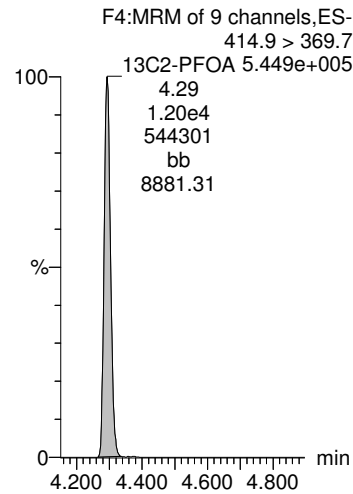
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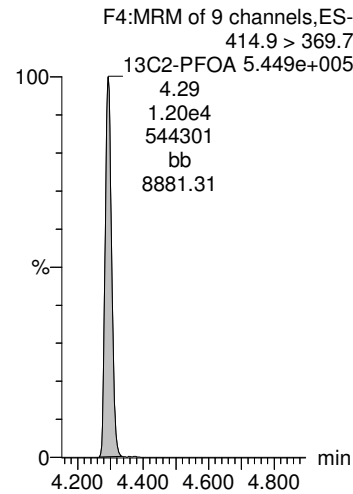
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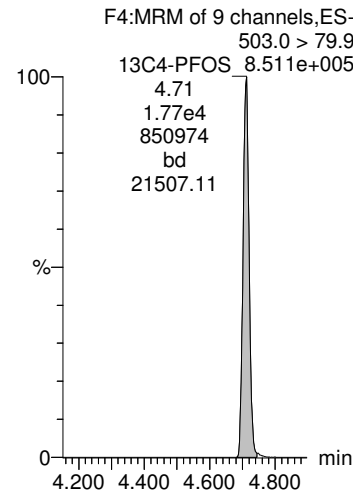
13C2-PFOA



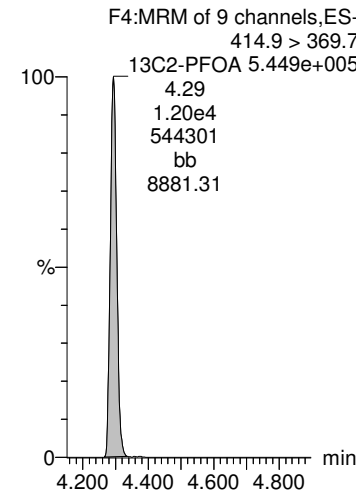
13C2-PFOA



13C4-PFOS



13C2-PFOA



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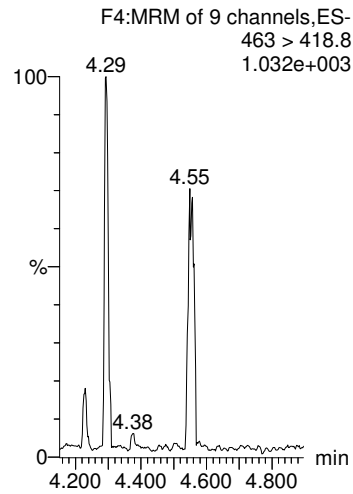
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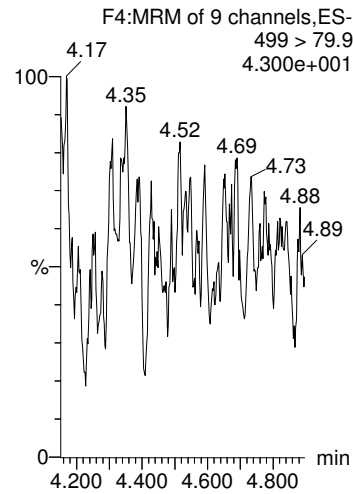
Printed: Tuesday, March 06, 2018 12:54:41 Pacific Standard Time

Name: 180302G2-10, Date: 02-Mar-2018, Time: 16:20:27, ID: 1800362-03 WI-A06-FB02-022018 0.26676, Description: WI-A06-FB02-022018

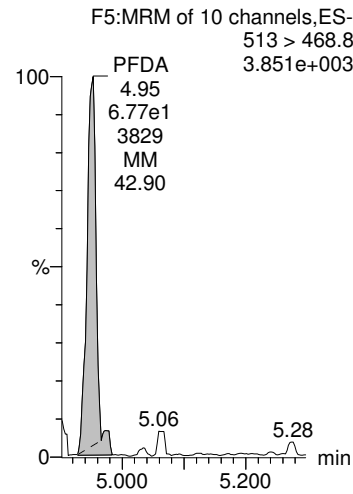
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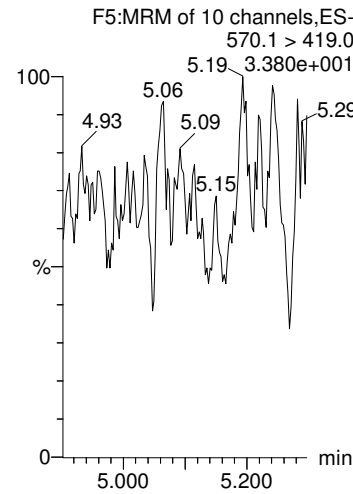
PFOS



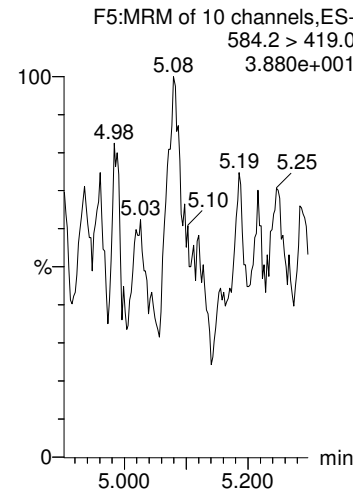
PFDA



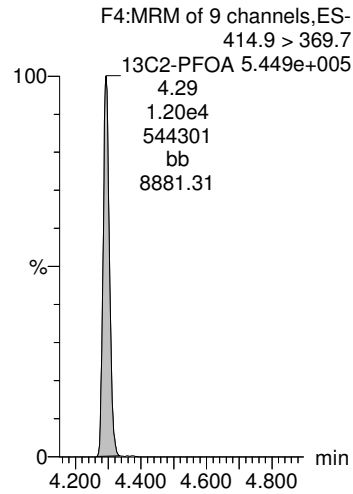
N-MeFOSAA



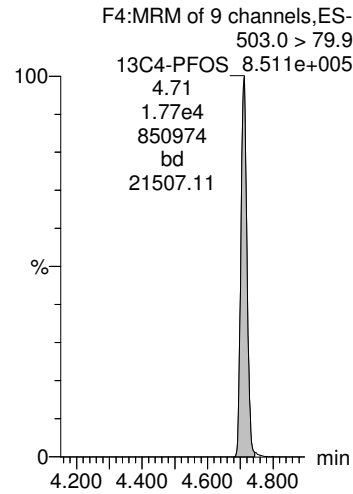
N-EtFOSAA



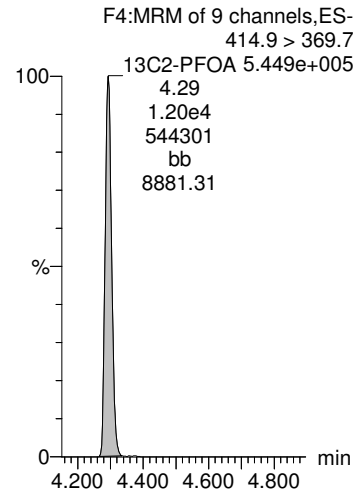
13C2-PFOA



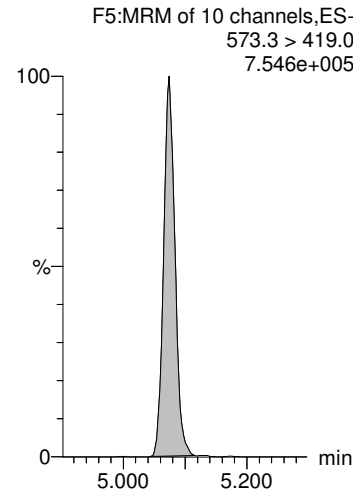
13C4-PFOS



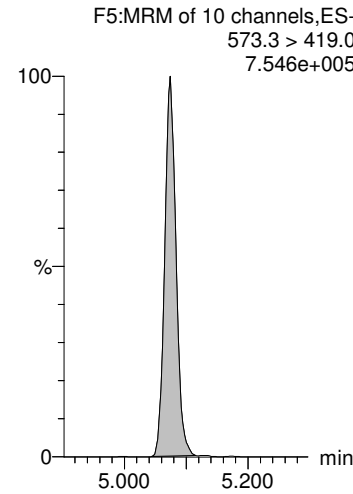
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA

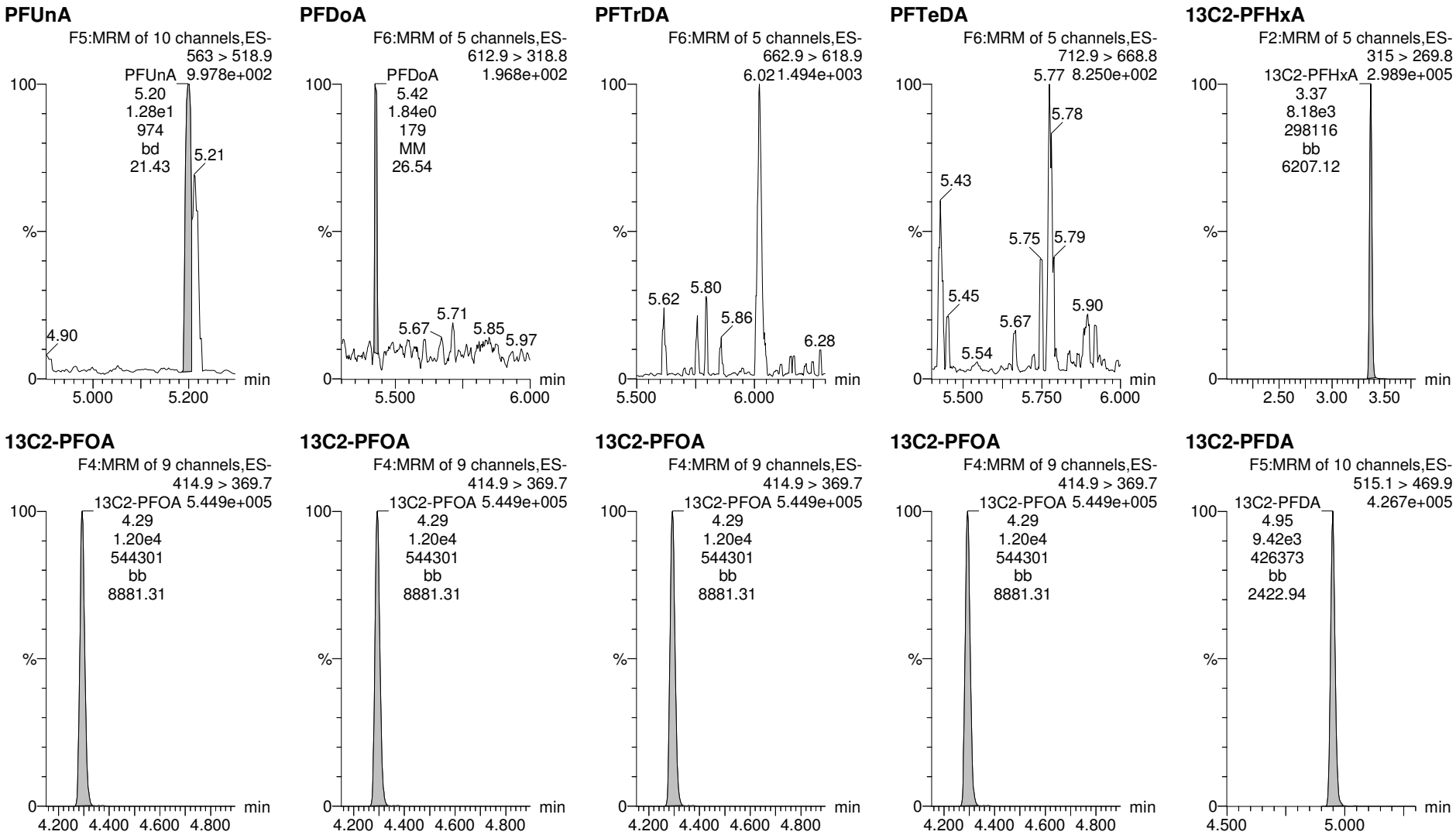


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Last Altered: Tuesday, March 06, 2018 12:54:00 Pacific Standard Time

Printed: Tuesday, March 06, 2018 12:54:41 Pacific Standard Time

Name: 180302G2-10, Date: 02-Mar-2018, Time: 16:20:27, ID: 1800362-03 WI-A06-FB02-022018 0.26676, Description: WI-A06-FB02-022018



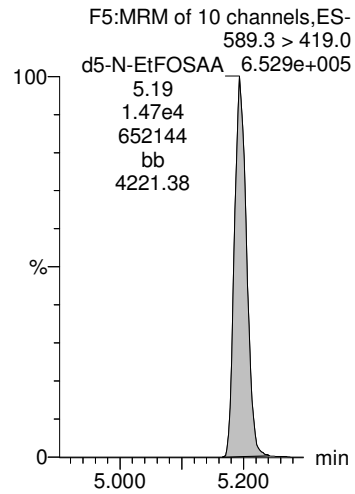
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Last Altered: Tuesday, March 06, 2018 12:54:00 Pacific Standard Time

Printed: Tuesday, March 06, 2018 12:54:41 Pacific Standard Time

Name: 180302G2-10, Date: 02-Mar-2018, Time: 16:20:27, ID: 1800362-03 WI-A06-FB02-022018 0.26676, Description: WI-A06-FB02-022018

d5-N-EtFOSAA



**INJECTION INTERNAL STANDARD (IIS) AREAS,
INSTRUMENT BLANKS (IB)
AND
CONTINUING CALIBRATION VERIFICATIONS CCV)**

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	Ical Area	Area %
1 ST180302G2-1 PFC CS-1 537 18B2310	180302G2-2	Analyte	10	4.30	12486.88	8974.47	139.14
2 IPA	180302G2-3	Analyte	10			8974.47	0.00
3 B8B0160-BS1 LFB 0.25	180302G2-4	Analyte	10	4.29	10545.81	8974.47	117.51
4 B8B0160-MS1 LFSM 0.28371	180302G2-5	Analyte	10	4.29	11190.04	8974.47	124.69
5 B8B0160-MSD1 LFSMD 0.28333	180302G2-6	Analyte	10	4.29	11649.22	8974.47	129.80
6 B8B0160-BLK1 LRB 0.25	180302G2-7	Analyte	10	4.29	11427.65	8974.47	127.34
7 1800362-01 WI-A06-RW17-0218 0.27803	180302G2-8	Analyte	10	4.29	11472.5	8974.47	127.83
8 1800362-02 WI-A06-RW17P-0218 0.27707	180302G2-9	Analyte	10	4.30	12019.47	8974.47	133.93
9 1800362-03 WI-A06-FB02-022018 0.26676	180302G2-10	Analyte	10	4.29	12013.48	8974.47	133.86
10 1800363-11 CH-AT-2FB58-0218 0.27863	180302G2-11	Analyte	10	4.29	11747.86	8974.47	130.90
11 1800363-12 CH-AT-2FB58B-0218 0.26068	180302G2-12	Analyte	10	4.29	11580.55	8974.47	129.04
12 1800363-13 CH-AT-2FB58C-0218 0.25509	180302G2-13	Analyte	10	4.30	11714.47	8974.47	130.53
13 1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	10	4.29	10405.79	8974.47	115.95
14 1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	10	4.30	11889.96	8974.47	132.49
15 1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	10	4.30	11544.01	8974.47	128.63
16 1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	10	4.30	12957.85	8974.47	144.39
17 1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	10	4.29	12610.74	8974.47	140.52
18 1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	10	4.29	11764.75	8974.47	131.09
19 1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	10	4.29	12315.24	8974.47	137.23
20 1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	10	4.30	11981.04	8974.47	133.50
21 1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	10	4.29	12362.34	8974.47	137.75
22 IPA	180302G2-23	Analyte	10			8974.47	0.00
23 ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	10	4.3	12266.96	8974.47	136.69
24 IPA	180302G2-25	Analyte	10			8974.47	0.00
25 B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	10	4.29	8764.813	8974.47	97.66
26 B8B0169-BSD1 LFB 0.25	180302G2-27	Analyte	10	4.29	10486.42	8974.47	116.85
27 B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	10	4.30	11889.89	8974.47	132.49
28 1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	10	4.29	10606.87	8974.47	118.19
29 1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	10	4.29	11280.31	8974.47	125.69
30 1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	10	4.29	10578.57	8974.47	117.87

31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	10	4.29	10521.43	8974.47	117.24
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	10	4.29	10590.93	8974.47	118.01
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	10	4.29	10760.6	8974.47	119.90
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	10	4.29	10995.66	8974.47	122.52
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	10	4.29	10888.61	8974.47	121.33
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	10	4.30	9400.12	8974.47	104.74
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	10	4.29	10868.15	8974.47	121.10
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	10	4.29	10216.5	8974.47	113.84
39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	10	4.30	9952.392	8974.47	110.90
40	IPA	180302G2-41	Analyte	10			8974.47	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	10	4.30	11117.88	8974.47	123.88
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	10	4.29	10612.19	8974.47	118.25
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	10	4.29	10859.7	8974.47	121.01
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	10	4.30	11067.61	8974.47	123.32
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	10	4.29	9732.047	8974.47	108.44
46	IPA	180302G2-47	Analyte	10			8974.47	0.00
47	ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	10	4.30	11971.58	8974.47	133.40
48	IPA	180302G2-49	Analyte	10			8974.47	0.00

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	Ical Area	Area %
1	ST180302G2-1 PFC CS-1 537 18B2310	Analyte	28.7	4.71	18744.89	17934.74	104.52
2	IPA	Analyte	28.7			17934.74	0.00
3	B8B0160-BS1 LFB 0.25	Analyte	28.7	4.71	16923.13	17934.74	94.36
4	B8B0160-MS1 LFSM 0.28371	Analyte	28.7	4.71	17867.06	17934.74	99.62
5	B8B0160-MSD1 LFSMD 0.28333	Analyte	28.7	4.71	16860.16	17934.74	94.01
6	B8B0160-BLK1 LRB 0.25	Analyte	28.7	4.71	16885.04	17934.74	94.15
7	1800362-01 WI-A06-RW17-0218 0.27803	Analyte	28.7	4.71	17847.62	17934.74	99.51
8	1800362-02 WI-A06-RW17P-0218 0.27707	Analyte	28.7	4.71	17534.41	17934.74	97.77
9	1800362-03 WI-A06-FB02-022018 0.26676	Analyte	28.7	4.71	17672.9	17934.74	98.54
10	1800363-11 CH-AT-2FB58-0218 0.27863	Analyte	28.7	4.71	16622.71	17934.74	92.68
11	1800363-12 CH-AT-2FB58B-0218 0.26068	Analyte	28.7	4.71	16101.56	17934.74	89.78
12	1800363-13 CH-AT-2FB58C-0218 0.25509	Analyte	28.7	4.71	17046.99	17934.74	95.05

13	1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	28.7	4.71	13908.9	17934.74	77.55
14	1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	28.7	4.71	16926.54	17934.74	94.38
15	1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	28.7	4.71	16902.65	17934.74	94.25
16	1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	28.7	4.71	16369.4	17934.74	91.27
17	1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	28.7	4.71	16675.03	17934.74	92.98
18	1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	28.7	4.71	15567.54	17934.74	86.80
19	1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	28.7	4.71	17079.22	17934.74	95.23
20	1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	28.7	4.71	15107.26	17934.74	84.23
21	1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	28.7	4.71	16806.69	17934.74	93.71
22	IPA	180302G2-23	Analyte	28.7			17934.74	0.00
23	ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	28.7	4.71	16902.92	17934.74	94.25
24	IPA	180302G2-25	Analyte	28.7			17934.74	0.00
25	B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	28.7	4.71	13329.08	17934.74	74.32
26	B8B0169-BSD1 LFBD 0.25	180302G2-27	Analyte	28.7	4.71	13927.74	17934.74	77.66
27	B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	28.7	4.71	14337.06	17934.74	79.94
28	1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	28.7	4.71	15084.44	17934.74	84.11
29	1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	28.7	4.71	15782.42	17934.74	88.00
30	1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	28.7	4.71	14576.8	17934.74	81.28
31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	28.7	4.71	12239.9	17934.74	68.25
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	28.7	4.71	13369.16	17934.74	74.54
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	28.7	4.71	13950.19	17934.74	77.78
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	28.7	4.71	14308.82	17934.74	79.78
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	28.7	4.71	14636.89	17934.74	81.61
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	28.7	4.71	13998.33	17934.74	78.05
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	28.7	4.71	13627.19	17934.74	75.98
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	28.7	4.71	14176.43	17934.74	79.04
39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	28.7	4.71	13821.17	17934.74	77.06
40	IPA	180302G2-41	Analyte	28.7			17934.74	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	28.7	4.71	13980.97	17934.74	77.95
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	28.7	4.71	14767.61	17934.74	82.34
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	28.7	4.71	14495.92	17934.74	80.83
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	28.7	4.71	13453.84	17934.74	75.02
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	28.7	4.71	13384.31	17934.74	74.63
46	IPA	180302G2-47	Analyte	28.7			17934.74	0.00

47 ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	28.7	4.71	16492.11	17934.74	91.96
48 IPA	180302G2-49	Analyte	28.7			17934.74	0.00

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	Ical Area	Area %
1 ST180302G2-1 PFC CS-1 537 18B2310	180302G2-2	Analyte	40	5.07	14953.63	12825.49	116.59
2 IPA	180302G2-3	Analyte	40			12825.49	0.00
3 B8B0160-BS1 LFB 0.25	180302G2-4	Analyte	40	5.07	15861.02	12825.49	123.67
4 B8B0160-MS1 LFSM 0.28371	180302G2-5	Analyte	40	5.07	14971.25	12825.49	116.73
5 B8B0160-MSD1 LFSMD 0.28333	180302G2-6	Analyte	40	5.07	14739.24	12825.49	114.92
6 B8B0160-BLK1 LRB 0.25	180302G2-7	Analyte	40	5.07	15424.69	12825.49	120.27
7 1800362-01 WI-A06-RW17-0218 0.27803	180302G2-8	Analyte	40	5.07	13981.58	12825.49	109.01
8 1800362-02 WI-A06-RW17P-0218 0.27707	180302G2-9	Analyte	40	5.07	15416.9	12825.49	120.21
9 1800362-03 WI-A06-FB02-022018 0.26676	180302G2-10	Analyte	40	5.07	15721.2	12825.49	122.58
10 1800363-11 CH-AT-2FB58-0218 0.27863	180302G2-11	Analyte	40	5.07	15673.21	12825.49	122.20
11 1800363-12 CH-AT-2FB58B-0218 0.26068	180302G2-12	Analyte	40	5.08	14514.21	12825.49	113.17
12 1800363-13 CH-AT-2FB58C-0218 0.25509	180302G2-13	Analyte	40	5.07	13117.01	12825.49	102.27
13 1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	40	5.07	14154.02	12825.49	110.36
14 1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	40	5.07	15148.97	12825.49	118.12
15 1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	40	5.07	14185.12	12825.49	110.60
16 1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	40	5.07	14781.17	12825.49	115.25
17 1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	40	5.07	14021.28	12825.49	109.32
18 1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	40	5.07	12766.54	12825.49	99.54
19 1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	40	5.07	14369.73	12825.49	112.04
20 1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	40	5.07	12570.03	12825.49	98.01
21 1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	40	5.07	13290.51	12825.49	103.63
22 IPA	180302G2-23	Analyte	40			12825.49	0.00
23 ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	40	5.07	14516.36	12825.49	113.18
24 IPA	180302G2-25	Analyte	40			12825.49	0.00
25 B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	40	5.07	11945.61	12825.49	93.14
26 B8B0169-BS1 LFB 0.25	180302G2-27	Analyte	40	5.07	13123.7	12825.49	102.33
27 B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	40	5.07	13139.3	12825.49	102.45
28 1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	40	5.07	12708.07	12825.49	99.08

29	1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	40	5.07	13664.89	12825.49	106.54
30	1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	40	5.07	13514.17	12825.49	105.37
31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	40	5.07	13415.83	12825.49	104.60
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	40	5.07	12801.33	12825.49	99.81
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	40	5.07	12758.2	12825.49	99.48
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	40	5.07	13404.27	12825.49	104.51
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	40	5.07	12938.25	12825.49	100.88
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	40	5.07	14188.84	12825.49	110.63
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	40	5.07	13394.21	12825.49	104.43
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	40	5.07	13350.42	12825.49	104.09
39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	40	5.07	12796.13	12825.49	99.77
40	IPA	180302G2-41	Analyte	40			12825.49	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	40	5.07	11508.95	12825.49	89.73
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	40	5.07	14073.01	12825.49	109.73
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	40	5.07	13311.78	12825.49	103.79
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	40	5.07	11945.35	12825.49	93.14
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	40	5.07	10884.66	12825.49	84.87
46	IPA	180302G2-47	Analyte	40			12825.49	0.00
47	ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	40	5.07	14601.4	12825.49	113.85
48	IPA	180302G2-49	Analyte	40	5.07	17.134	12825.49	0.13

CCAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	Ccal Area	Area %	
1	ST180302G2-1 PFC CS-1 537 18B2310	180302G2-2	Analyte	10	4.3	12486.88	12486.88	100.00
2	IPA	180302G2-3	Analyte	10			12486.88	0.00
3	B8B0160-BS1 LFB 0.25	180302G2-4	Analyte	10	4.29	10545.81	12486.88	84.46
4	B8B0160-MS1 LFSM 0.28371	180302G2-5	Analyte	10	4.29	11190.04	12486.88	89.61
5	B8B0160-MSD1 LFSMD 0.28333	180302G2-6	Analyte	10	4.29	11649.22	12486.88	93.29
6	B8B0160-BLK1 LRB 0.25	180302G2-7	Analyte	10	4.29	11427.65	12486.88	91.52
7	1800362-01 WI-A06-RW17-0218 0.27803	180302G2-8	Analyte	10	4.29	11472.5	12486.88	91.88
8	1800362-02 WI-A06-RW17P-0218 0.27707	180302G2-9	Analyte	10	4.3	12019.47	12486.88	96.26

9	1800362-03 WI-A06-FB02-022018 0.26676	180302G2-10	Analyte	10	4.29	12013.48	12486.88	96.21
10	1800363-11 CH-AT-2FB58-0218 0.27863	180302G2-11	Analyte	10	4.29	11747.86	12486.88	94.08
11	1800363-12 CH-AT-2FB58B-0218 0.26068	180302G2-12	Analyte	10	4.29	11580.55	12486.88	92.74
12	1800363-13 CH-AT-2FB58C-0218 0.25509	180302G2-13	Analyte	10	4.30	11714.47	12486.88	93.81
13	1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	10	4.29	10405.79	12486.88	83.33
14	1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	10	4.30	11889.96	12486.88	95.22
15	1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	10	4.30	11544.01	12486.88	92.45
16	1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	10	4.30	12957.85	12486.88	103.77
17	1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	10	4.29	12610.74	12486.88	100.99
18	1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	10	4.29	11764.75	12486.88	94.22
19	1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	10	4.29	12315.24	12486.88	98.63
20	1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	10	4.30	11981.04	12486.88	95.95
21	1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	10	4.29	12362.34	12486.88	99.00
22	IPA	180302G2-23	Analyte	10			12486.88	0.00
23	ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	10	4.30	12266.96	12486.88	98.24

						Ccal Area	Area %
23	ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	10	4.30	12266.96	12266.96 100.00
24	IPA	180302G2-25	Analyte	10			12266.96 0.00
25	B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	10	4.29	8764.813	12266.96 71.45
26	B8B0169-BSD1 LFB 0.25	180302G2-27	Analyte	10	4.29	10486.42	12266.96 85.49
27	B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	10	4.3	11889.89	12266.96 96.93
28	1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	10	4.29	10606.87	12266.96 86.47
29	1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	10	4.29	11280.31	12266.96 91.96
30	1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	10	4.29	10578.57	12266.96 86.24
31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	10	4.29	10521.43	12266.96 85.77
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	10	4.29	10590.93	12266.96 86.34
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	10	4.29	10760.6	12266.96 87.72
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	10	4.29	10995.66	12266.96 89.64
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	10	4.29	10888.61	12266.96 88.76
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	10	4.30	9400.12	12266.96 76.63
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	10	4.29	10868.15	12266.96 88.60
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	10	4.29	10216.5	12266.96 83.28

39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	10	4.30	9952.392	12266.96	81.13
40	IPA	180302G2-41	Analyte	10			12266.96	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	10	4.30	11117.88	12266.96	90.63
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	10	4.29	10612.19	12266.96	86.51
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	10	4.29	10859.7	12266.96	88.53
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	10	4.30	11067.61	12266.96	90.22
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	10	4.29	9732.047	12266.96	79.34
46	IPA	180302G2-47	Analyte	10			12266.96	0.00
47	ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	10	4.30	11971.58	12266.96	97.59
48	IPA	180302G2-49	Analyte	10			12266.96	0.00

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	Ccal Area	Area %	
1	ST180302G2-1 PFC CS-1 537 18B2310	180302G2-2	Analyte	28.7	4.71	18744.89	18744.89	100.00
2	IPA	180302G2-3	Analyte	28.7			18744.89	0.00
3	B8B0160-BS1 LFB 0.25	180302G2-4	Analyte	28.7	4.71	16923.13	18744.89	90.28
4	B8B0160-MS1 LFSM 0.28371	180302G2-5	Analyte	28.7	4.71	17867.06	18744.89	95.32
5	B8B0160-MSD1 LFSMD 0.28333	180302G2-6	Analyte	28.7	4.71	16860.16	18744.89	89.95
6	B8B0160-BLK1 LRB 0.25	180302G2-7	Analyte	28.7	4.71	16885.04	18744.89	90.08
7	1800362-01 WI-A06-RW17-0218 0.27803	180302G2-8	Analyte	28.7	4.71	17847.62	18744.89	95.21
8	1800362-02 WI-A06-RW17P-0218 0.27707	180302G2-9	Analyte	28.7	4.71	17534.41	18744.89	93.54
9	1800362-03 WI-A06-FB02-022018 0.26676	180302G2-10	Analyte	28.7	4.71	17672.9	18744.89	94.28
10	1800363-11 CH-AT-2FB58-0218 0.27863	180302G2-11	Analyte	28.7	4.71	16622.71	18744.89	88.68
11	1800363-12 CH-AT-2FB58B-0218 0.26068	180302G2-12	Analyte	28.7	4.71	16101.56	18744.89	85.90
12	1800363-13 CH-AT-2FB58C-0218 0.25509	180302G2-13	Analyte	28.7	4.71	17046.99	18744.89	90.94
13	1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	28.7	4.71	13908.9	18744.89	74.20
14	1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	28.7	4.71	16926.54	18744.89	90.30
15	1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	28.7	4.71	16902.65	18744.89	90.17
16	1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	28.7	4.71	16369.4	18744.89	87.33
17	1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	28.7	4.71	16675.03	18744.89	88.96
18	1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	28.7	4.71	15567.54	18744.89	83.05
19	1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	28.7	4.71	17079.22	18744.89	91.11

20	1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	28.7	4.71	15107.26	18744.89	80.59
21	1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	28.7	4.71	16806.69	18744.89	89.66
22	IPA	180302G2-23	Analyte	28.7			18744.89	0.00
23	ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	28.7	4.71	16902.92	18744.89	90.17

							Ccal Area	Area %
23	ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	28.7	4.71	16902.92	16902.92	100.00
24	IPA	180302G2-25	Analyte	28.7			16902.92	0.00
25	B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	28.7	4.71	13329.08	16902.92	78.86
26	B8B0169-BSD1 LFBD 0.25	180302G2-27	Analyte	28.7	4.71	13927.74	16902.92	82.40
27	B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	28.7	4.71	14337.06	16902.92	84.82
28	1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	28.7	4.71	15084.44	16902.92	89.24
29	1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	28.7	4.71	15782.42	16902.92	93.37
30	1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	28.7	4.71	14576.8	16902.92	86.24
31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	28.7	4.71	12239.9	16902.92	72.41
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	28.7	4.71	13369.16	16902.92	79.09
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	28.7	4.71	13950.19	16902.92	82.53
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	28.7	4.71	14308.82	16902.92	84.65
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	28.7	4.71	14636.89	16902.92	86.59
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	28.7	4.71	13998.33	16902.92	82.82
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	28.7	4.71	13627.19	16902.92	80.62
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	28.7	4.71	14176.43	16902.92	83.87
39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	28.7	4.71	13821.17	16902.92	81.77
40	IPA	180302G2-41	Analyte	28.7			16902.92	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	28.7	4.71	13980.97	16902.92	82.71
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	28.7	4.71	14767.61	16902.92	87.37
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	28.7	4.71	14495.92	16902.92	85.76
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	28.7	4.71	13453.84	16902.92	79.59
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	28.7	4.71	13384.31	16902.92	79.18
46	IPA	180302G2-47	Analyte	28.7			16902.92	0.00
47	ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	28.7	4.71	16492.11	16902.92	97.57
48	IPA	180302G2-49	Analyte	28.7			16902.92	0.00

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	Ccal Area	Area %
1 ST180302G2-1 PFC CS-1 537 18B2310	180302G2-2	Analyte	40	5.07	14953.63	14953.63	100.00
2 IPA	180302G2-3	Analyte	40			14953.63	0.00
3 B8B0160-BS1 LFB 0.25	180302G2-4	Analyte	40	5.07	15861.02	14953.63	106.07
4 B8B0160-MS1 LFSM 0.28371	180302G2-5	Analyte	40	5.07	14971.25	14953.63	100.12
5 B8B0160-MSD1 LFSMD 0.28333	180302G2-6	Analyte	40	5.07	14739.24	14953.63	98.57
6 B8B0160-BLK1 LRB 0.25	180302G2-7	Analyte	40	5.07	15424.69	14953.63	103.15
7 1800362-01 WI-A06-RW17-0218 0.27803	180302G2-8	Analyte	40	5.07	13981.58	14953.63	93.50
8 1800362-02 WI-A06-RW17P-0218 0.27707	180302G2-9	Analyte	40	5.07	15416.9	14953.63	103.10
9 1800362-03 WI-A06-FB02-022018 0.26676	180302G2-10	Analyte	40	5.07	15721.2	14953.63	105.13
10 1800363-11 CH-AT-2FB58-0218 0.27863	180302G2-11	Analyte	40	5.07	15673.21	14953.63	104.81
11 1800363-12 CH-AT-2FB58B-0218 0.26068	180302G2-12	Analyte	40	5.08	14514.21	14953.63	97.06
12 1800363-13 CH-AT-2FB58C-0218 0.25509	180302G2-13	Analyte	40	5.07	13117.01	14953.63	87.72
13 1800363-14 CH-AT-2FB58D-0218 0.25314	180302G2-14	Analyte	40	5.07	14154.02	14953.63	94.65
14 1800363-15 CH-AT-1RW161-0218 0.27602	180302G2-15	Analyte	40	5.07	15148.97	14953.63	101.31
15 1800363-16 CH-AT-1FB161-0218 0.28108	180302G2-16	Analyte	40	5.07	14185.12	14953.63	94.86
16 1800363-17 CH-AT-1RW162-0218 0.25552	180302G2-17	Analyte	40	5.07	14781.17	14953.63	98.85
17 1800363-18 CH-AT-1FB162-0218 0.26573	180302G2-18	Analyte	40	5.07	14021.28	14953.63	93.77
18 1800363-19 CH-AT-1RW163-0218 0.28567	180302G2-19	Analyte	40	5.07	12766.54	14953.63	85.37
19 1800363-20 CH-AT-1FB163-0218 0.25694	180302G2-20	Analyte	40	5.07	14369.73	14953.63	96.10
20 1800363-21 CH-AT-1RW164-0218 0.28409	180302G2-21	Analyte	40	5.07	12570.03	14953.63	84.06
21 1800363-22 CH-AT-1FB164-0218 0.25556	180302G2-22	Analyte	40	5.07	13290.51	14953.63	88.88
22 IPA	180302G2-23	Analyte	40			14953.63	0.00
23 ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	40	5.07	14516.36	14953.63	97.08
							Ccal Area Area %
23 ST180302G2-2 PFC CS1 537 18B2304	180302G2-24	Analyte	40	5.07	14516.36	14516.36	100.00
24 IPA	180302G2-25	Analyte	40			14516.36	0.00
25 B8B0169-BS1 LFB 0.25	180302G2-26	Analyte	40	5.07	11945.61	14516.36	82.29
26 B8B0169-BSD1 LFB 0.25	180302G2-27	Analyte	40	5.07	13123.7	14516.36	90.41
27 B8B0169-BLK1 LRB 0.25	180302G2-28	Analyte	40	5.07	13139.3	14516.36	90.51
28 1800366-01 CH-AT-1RW165-0218 0.24548	180302G2-29	Analyte	40	5.07	12708.07	14516.36	87.54

29	1800366-02 CH-AT-1FB165-0218 0.25404	180302G2-30	Analyte	40	5.07	13664.89	14516.36	94.13
30	1800366-03 CH-AT-1RW166-0218 0.24491	180302G2-31	Analyte	40	5.07	13514.17	14516.36	93.10
31	1800366-04 CH-AT-1FB166-0218 0.25454	180302G2-32	Analyte	40	5.07	13415.83	14516.36	92.42
32	1800366-05 CH-AT-1RW167-0218 0.24782	180302G2-33	Analyte	40	5.07	12801.33	14516.36	88.19
33	1800366-06 CH-AT-1FB167-0218 0.234	180302G2-34	Analyte	40	5.07	12758.2	14516.36	87.89
34	1800366-07 CH-AT-1RW168-0218 0.24747	180302G2-35	Analyte	40	5.07	13404.27	14516.36	92.34
35	1800366-08 CH-AT-1FB168-0218 0.2506	180302G2-36	Analyte	40	5.07	12938.25	14516.36	89.13
36	1800366-09 CH-AT-1RW169-0218 0.25031	180302G2-37	Analyte	40	5.07	14188.84	14516.36	97.74
37	1800366-10 CH-AT-1FB169-0218 0.24911	180302G2-38	Analyte	40	5.07	13394.21	14516.36	92.27
38	1800366-11 CH-AT-1RW170-0218 0.24988	180302G2-39	Analyte	40	5.07	13350.42	14516.36	91.97
39	1800366-12 CH-AT-1FB170-0218 0.25246	180302G2-40	Analyte	40	5.07	12796.13	14516.36	88.15
40	1800359-01 IPR F. Rivera 0.25	180302G2-41	Analyte	40			14516.36	0.00
41	B8B0148-BS1 LFB 0.25	180302G2-42	Analyte	40	5.07	11508.95	14516.36	79.28
42	B8B0148-BS2 LFB 0.25	180302G2-43	Analyte	40	5.07	14073.01	14516.36	96.95
43	B8B0148-BS3 LFB 0.25	180302G2-44	Analyte	40	5.07	13311.78	14516.36	91.70
44	B8B0148-BS4 LFB 0.25	180302G2-45	Analyte	40	5.07	11945.35	14516.36	82.29
45	B8B0148-BLK1 LRB 0.25	180302G2-46	Analyte	40	5.07	10884.66	14516.36	74.98
46	IPA	180302G2-47	Analyte	40			14516.36	0.00
47	ST180223G2-6 PFC CS2 537 18B2305	180302G2-48	Analyte	40	5.07	14601.4	14516.36	100.59
48	IPA	180302G2-49	Analyte	40	5.07	17.134	14516.36	0.12

LC Calibration Standards Review Checklist

Q1

Calibration ID:	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST180302G2-1 L M H	NA	☒	☒	☒	☒	☒	☐
T -2 L M H	☐	☒	☒	☒	☒	☒	☐
↓ -3 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:

4.15.17
4.15.18

Run Log Present:



of Samples per Sequence Checked:



Instrument Blank Saved



NA DW

IIS Area Saved



Reviewed By:

Olw 3/5/18
Initials/Date

Comments:

L14
DW

MTT
3/5/18

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-2.qld

Last Altered: Monday, March 05, 2018 13:26:15 Pacific Standard Time

Printed: Monday, March 05, 2018 13:26:37 Pacific Standard Time

10m 3/6/18

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

*MJT
3/5/18*

Name: 180302G2-2, Date: 02-Mar-2018, Time: 14:41:11, ID: ST180302G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	9.87e2	1.87e4	1.0000		3.02	3.00	1.51	2.07	116.8
2	2 PFHxA	313.2 > 268.9	1.45e3	1.25e4	1.0000		3.35	3.37	1.16	2.10	105.2
3	3 PFHpA	363 > 318.9	2.57e3	1.25e4	1.0000		3.87	3.87	2.06	2.19	109.6
4	4 PFHxS	398.9 > 79.6	1.03e3	1.87e4	1.0000		4.00	3.99	1.58	2.26	124.1
5	5 PFOA	413 > 368.7	2.23e3	1.25e4	1.0000		4.30	4.30	1.79	2.13	106.6
6	6 PFNA	463 > 418.8	2.81e3	1.25e4	1.0000		4.64	4.65	2.25	2.22	110.8
7	7 PFOS	499 > 79.9	1.26e3	1.87e4	1.0000		4.71	4.71	1.94	2.02	109.0
8	8 PFDA	513 > 468.8	2.88e3	1.25e4	1.0000		4.87	4.95	2.31	2.08	104.1
9	9 N-MeFOSAA	570.1 > 419.0	1.12e3	1.50e4	1.0000		5.01	5.08	2.99	2.27	113.6
10	10 N-EtFOSAA	584.2 > 419.0	7.86e2	1.50e4	1.0000		5.19	5.20	2.10	1.98	99.2
11	11 PFUnA	563 > 518.9	2.68e3	1.25e4	1.0000		5.13	5.21	2.15	2.14	106.8
12	12 PFDoA	612.9 > 318.8	3.48e2	1.25e4	1.0000		5.33	5.43	0.279	1.76	88.0
13	13 PFTrDA	662.9 > 618.9	3.72e3	1.25e4	1.0000		5.56	5.62	2.98	2.17	108.5
14	14 PFTeDA	712.9 > 668.8	3.45e3	1.25e4	1.0000		5.73	5.78	2.76	2.21	110.6
15	15 13C2-PFHxA	315 > 269.8	9.03e3	1.25e4	1.0000	0.731	3.45	3.37	7.23	9.89	98.9
16	16 13C2-PFDA	515.1 > 469.9	9.63e3	1.25e4	1.0000	0.910	4.90	4.95	7.71	8.47	84.7
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.68e4	1.50e4	1.0000	1.049	5.07	5.19	45.0	42.9	107.2
18	18 13C2-PFOA	414.9 > 369.7	1.25e4	1.25e4	1.0000	1.000	4.41	4.30	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.87e4	1.87e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.50e4	1.50e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, March 05, 2018 11:08:39 Pacific Standard Time

Printed: Monday, March 05, 2018 11:09:52 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180302G2-1	IPA	02-Mar-18	14:29:09
2	180302G2-2	ST180302G2-1 PFC CS-1 537 18B2310	02-Mar-18	14:41:11
3	180302G2-3	IPA	02-Mar-18	14:53:32
4	180302G2-4	B8B0160-BS1 LFB 0.25	02-Mar-18	15:05:59
5	180302G2-5	B8B0160-MS1 LFSM 0.28371	02-Mar-18	15:18:21
6	180302G2-6	B8B0160-MSD1 LFSMD 0.28333	02-Mar-18	15:30:45
7	180302G2-7	B8B0160-BLK1 LRB 0.25	02-Mar-18	15:43:11
8	180302G2-8	1800362-01 WI-A06-RW17-0218 0.27803	02-Mar-18	15:55:37
9	180302G2-9	1800362-02 WI-A06-RW17P-0218 0.27707	02-Mar-18	16:08:01
10	180302G2-10	1800362-03 WI-A06-FB02-022018 0.26676	02-Mar-18	16:20:27
11	180302G2-11	1800363-11 CH-AT-2FB58-0218 0.27863	02-Mar-18	16:32:51
12	180302G2-12	1800363-12 CH-AT-2FB58B-0218 0.26068	02-Mar-18	16:45:17
13	180302G2-13	1800363-13 CH-AT-2FB58C-0218 0.25509	02-Mar-18	16:57:37
14	180302G2-14	1800363-14 CH-AT-2FB58D-0218 0.25314	02-Mar-18	17:10:02
15	180302G2-15	1800363-15 CH-AT-1RW161-0218 0.27602	02-Mar-18	17:22:20
16	180302G2-16	1800363-16 CH-AT-1FB161-0218 0.28108	02-Mar-18	17:34:45
17	180302G2-17	1800363-17 CH-AT-1RW162-0218 0.25552	02-Mar-18	17:47:10
18	180302G2-18	1800363-18 CH-AT-1FB162-0218 0.26573	02-Mar-18	17:59:35
19	180302G2-19	1800363-19 CH-AT-1RW163-0218 0.28567	02-Mar-18	18:12:00
20	180302G2-20	1800363-20 CH-AT-1FB163-0218 0.25694	02-Mar-18	18:24:27
21	180302G2-21	1800363-21 CH-AT-1RW164-0218 0.28409	02-Mar-18	18:36:48
22	180302G2-22	1800363-22 CH-AT-1FB164-0218 0.25556	02-Mar-18	18:49:11
23	180302G2-23	IPA	02-Mar-18	19:01:36
24	180302G2-24	ST180302G2-2 PFC CS1 537 18B2304	02-Mar-18	19:14:04
25	180302G2-25	IPA	02-Mar-18	19:26:27
26	180302G2-26	B8B0169-BS1 LFB 0.25	02-Mar-18	19:38:52
27	180302G2-27	B8B0169-BSD1 LFB 0.25	02-Mar-18	19:51:16
28	180302G2-28	B8B0169-BLK1 LRB 0.25	02-Mar-18	20:03:46
29	180302G2-29	1800366-01 CH-AT-1RW165-0218 0.24548	02-Mar-18	20:16:07
30	180302G2-30	1800366-02 CH-AT-1FB165-0218 0.25404	02-Mar-18	20:28:30
31	180302G2-31	1800366-03 CH-AT-1RW166-0218 0.24491	02-Mar-18	20:40:56
32	180302G2-32	1800366-04 CH-AT-1FB166-0218 0.25454	02-Mar-18	20:53:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, March 05, 2018 11:08:39 Pacific Standard Time

Printed: Monday, March 05, 2018 11:09:52 Pacific Standard Time

Compound name: PFBS

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34	180302G2-34	1800366-06 CH-AT-1FB167-0218 0.234	02-Mar-18	21:17:51
35	180302G2-35	1800366-07 CH-AT-1RW168-0218 0.24747	02-Mar-18	21:30:16
36	180302G2-36	1800366-08 CH-AT-1FB168-0218 0.2506	02-Mar-18	21:42:41
37	180302G2-37	1800366-09 CH-AT-1RW169-0218 0.25031	02-Mar-18	21:55:07
38	180302G2-38	1800366-10 CH-AT-1FB169-0218 0.24911	02-Mar-18	22:07:31
39	180302G2-39	1800366-11 CH-AT-1RW170-0218 0.24988	02-Mar-18	22:19:57
40	180302G2-40	1800366-12 CH-AT-1FB170-0218 0.25246	02-Mar-18	22:32:17
41	180302G2-41	1800359-01 IPR F. Rivera 0.25	02-Mar-18	22:44:35
42	180302G2-42	B8B0148-BS1 LFB 0.25	02-Mar-18	22:57:01
43	180302G2-43	B8B0148-BS2 LFB 0.25	02-Mar-18	23:09:25
44	180302G2-44	B8B0148-BS3 LFB 0.25	02-Mar-18	23:21:50
45	180302G2-45	B8B0148-BS4 LFB 0.25	02-Mar-18	23:34:15
46	180302G2-46	B8B0148-BLK1 LRB 0.25	02-Mar-18	23:46:40
47	180302G2-47	IPA	02-Mar-18	23:59:06
48	180302G2-48	ST180302G2-3 PFC CS2 537 18B2305	03-Mar-18	00:11:30
49	180302G2-49	IPA	03-Mar-18	00:23:54

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Last Altered: Monday, March 05, 2018 13:26:15 Pacific Standard Time

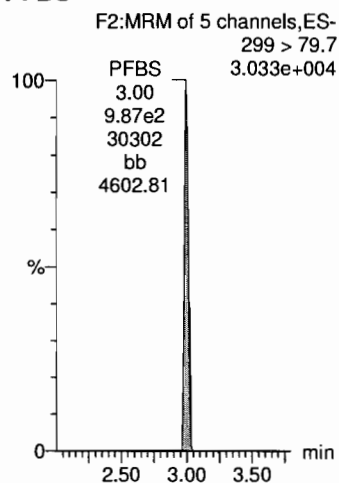
Printed: Monday, March 05, 2018 13:26:37 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

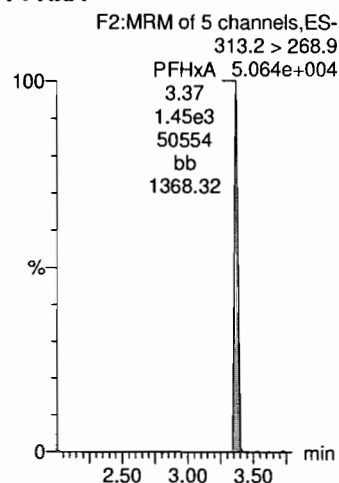
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Name: 180302G2-2, Date: 02-Mar-2018, Time: 14:41:11, ID: ST180302G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

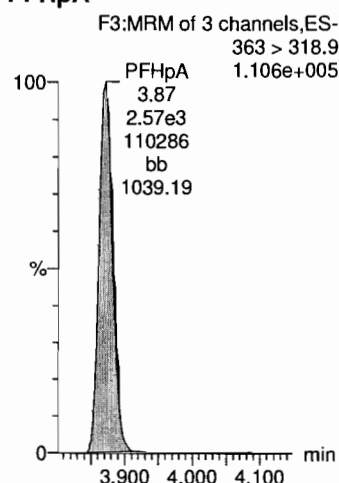
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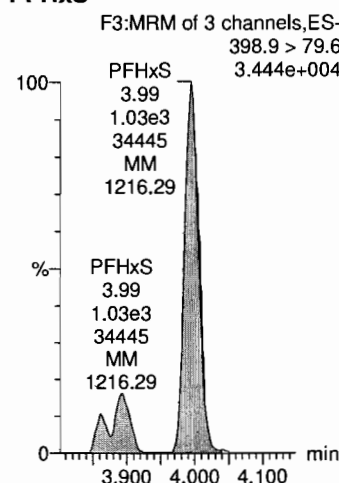
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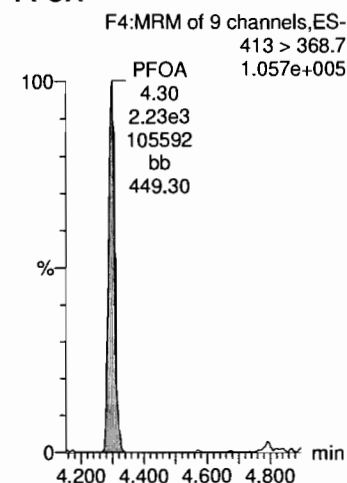
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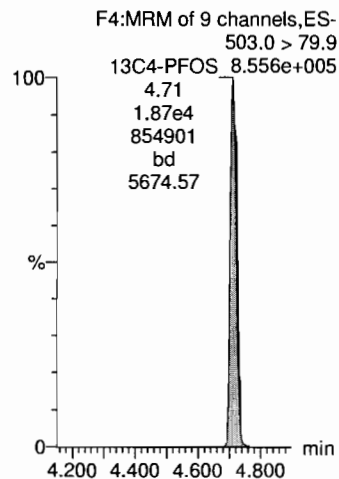
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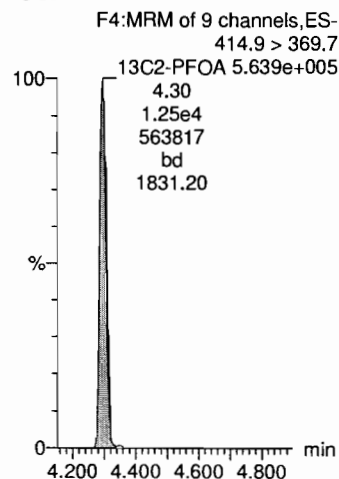
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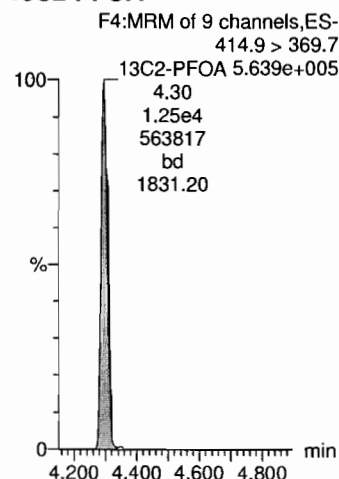
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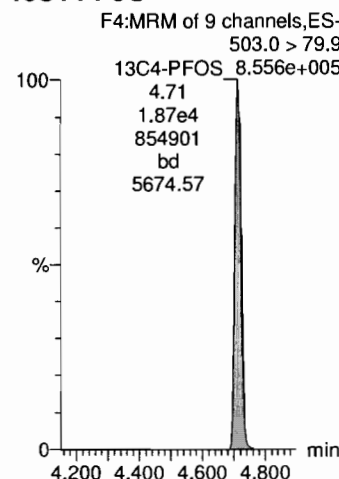
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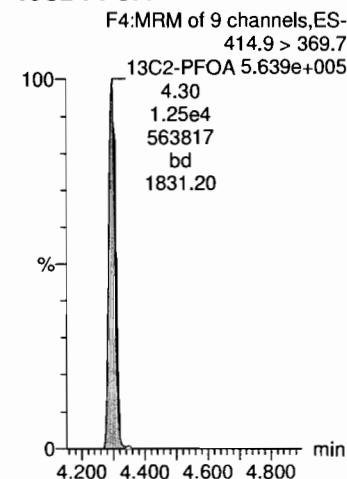
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13C4-PFOS



13C2-PFOA



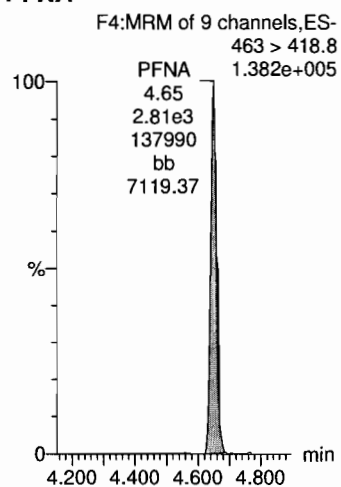
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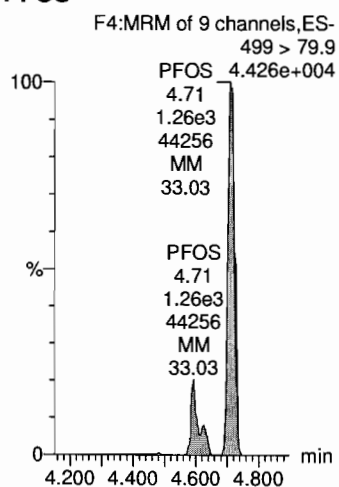
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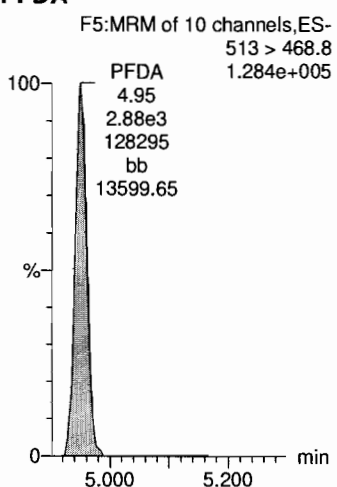
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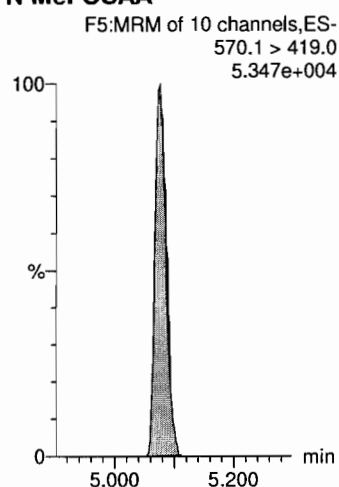
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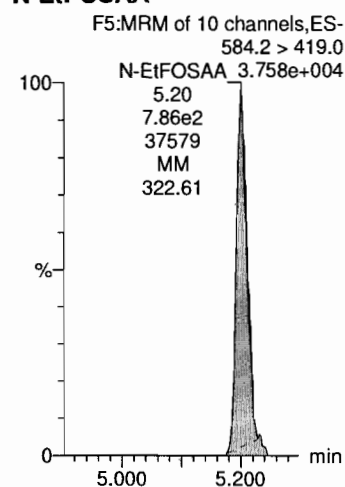
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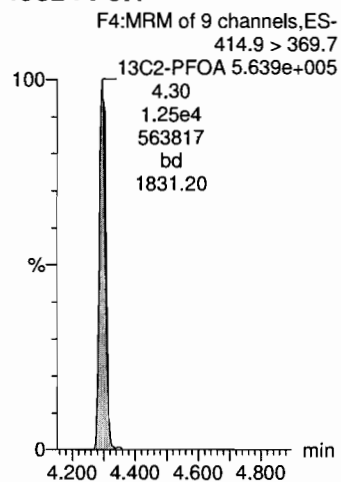
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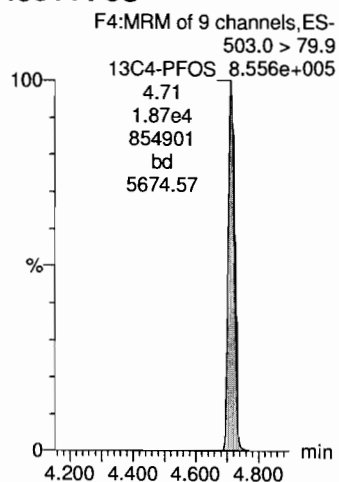
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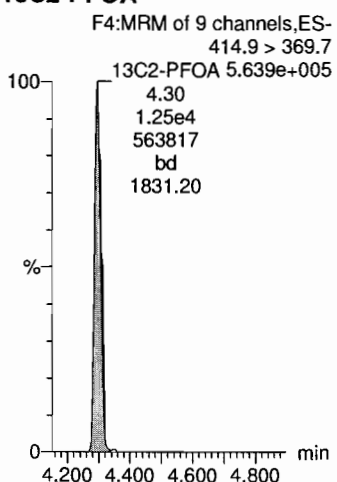
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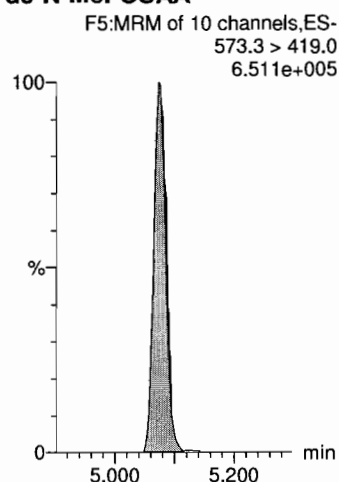
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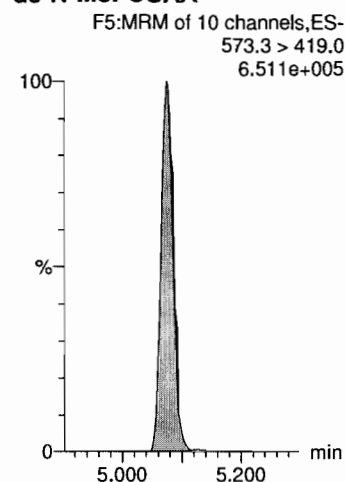
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d3-N-MeFOSAA



d3-N-MeFOSAA



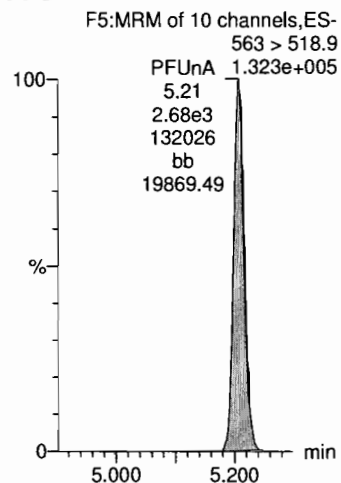
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Last Altered: Monday, March 05, 2018 13:26:15 Pacific Standard Time

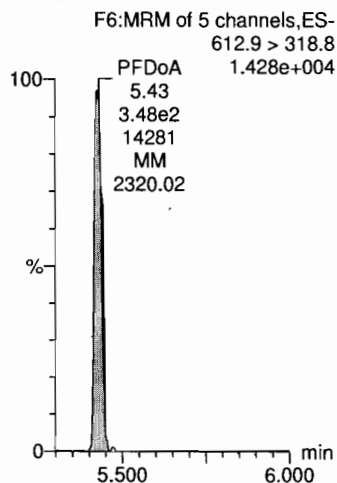
Printed: Monday, March 05, 2018 13:26:37 Pacific Standard Time

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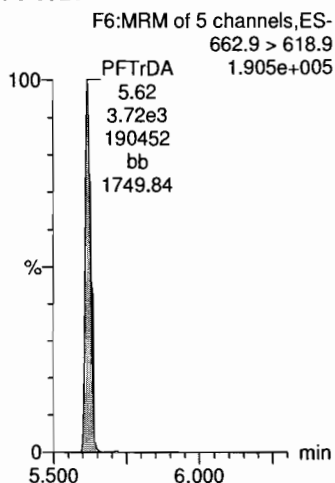
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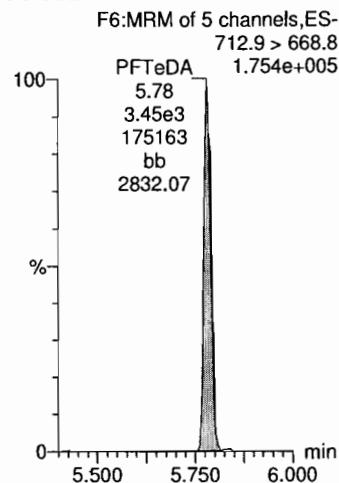
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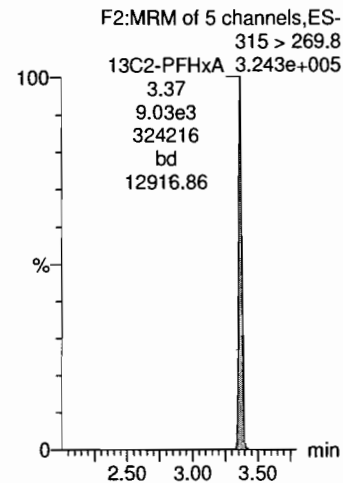
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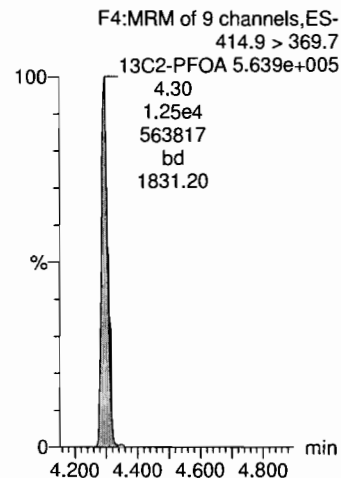
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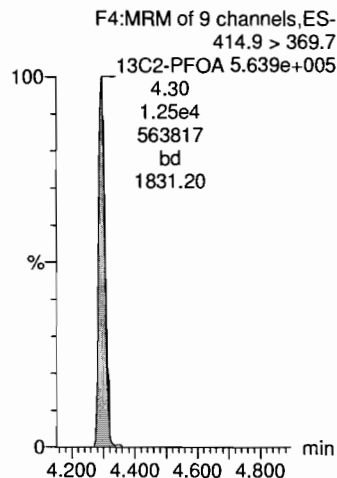
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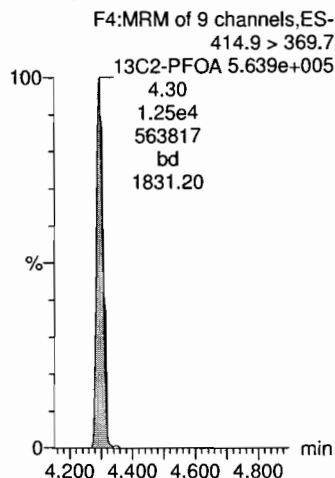
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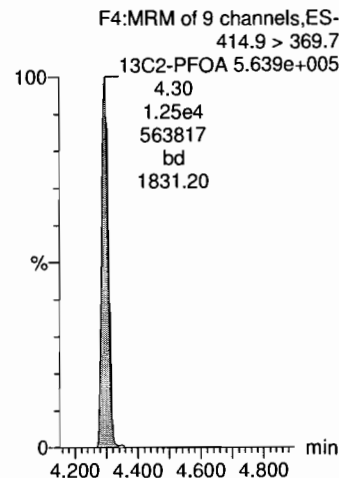
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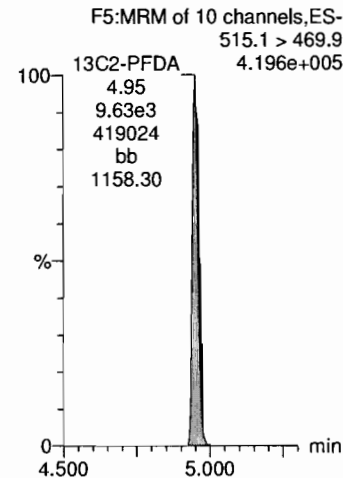
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13C2-PFOA



13C2-PFDA

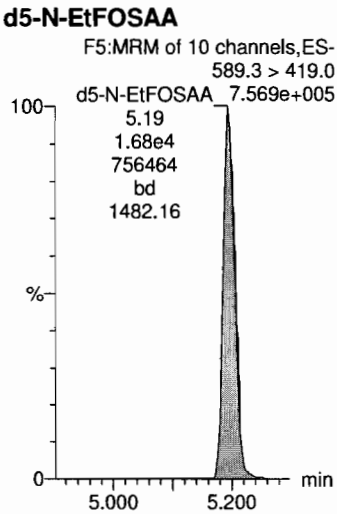


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Last Altered: Monday, March 05, 2018 13:26:15 Pacific Standard Time

Printed: Monday, March 05, 2018 13:26:37 Pacific Standard Time

Name: 180302G2-2, Date: 02-Mar-2018, Time: 14:41:11, ID: ST180302G2-1 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310



Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-24.qld

Last Altered: Saturday, March 03, 2018 11:44:00 Pacific Standard Time

Printed: Monday, March 05, 2018 11:00:19 Pacific Standard Time

Jem 3/6/18

Method: X:\G1.pro\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.pro\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

*MJT
3/5/18*

Name: 180302G2-24, Date: 02-Mar-2018, Time: 19:14:04, ID: ST180302G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.05e3	1.69e4	1.0000		3.02	3.00	6.88	9.41	106.3
2	2 PFHxA	313.2 > 268.9	5.70e3	1.23e4	1.0000		3.35	3.37	4.65	8.40	84.0
3	3 PFHpA	363 > 318.9	1.06e4	1.23e4	1.0000		3.87	3.88	8.61	9.16	91.6
4	4 PFHxS	398.9 > 79.6	4.60e3	1.69e4	1.0000		4.00	4.00	7.81	11.2	122.3
5	5 PFOA	413 > 368.7	9.81e3	1.23e4	1.0000		4.30	4.30	8.00	9.55	95.5
6	6 PFNA	463 > 418.8	1.21e4	1.23e4	1.0000		4.64	4.65	9.83	9.67	96.7
7	7 PFOS	499 > 79.9	5.00e3	1.69e4	1.0000		4.71	4.71	8.49	8.84	95.6
8	8 PFDA	513 > 468.8	1.09e4	1.23e4	1.0000		4.87	4.95	8.91	8.12	81.2
9	9 N-MeFOSAA	570.1 > 419.0	5.18e3	1.45e4	1.0000		5.01	5.08	14.3	10.7	106.6
10	10 N-EtFOSAA	584.2 > 419.0	4.14e3	1.45e4	1.0000		5.19	5.20	11.4	10.8	107.6
11	11 PFUnA	563 > 518.9	1.05e4	1.23e4	1.0000		5.13	5.21	8.53	8.49	84.9
12	12 PFDoA	612.9 > 318.8	1.87e3	1.23e4	1.0000		5.33	5.42	1.52	9.62	96.2
13	13 PFTrDA	662.9 > 618.9	1.42e4	1.23e4	1.0000		5.56	5.62	11.6	8.44	84.4
14	14 PFTeDA	712.9 > 668.8	1.28e4	1.23e4	1.0000		5.73	5.78	10.4	8.36	83.6
15	15 13C2-PFHxA	315 > 269.8	8.41e3	1.23e4	1.0000	0.731	3.45	3.37	6.86	9.37	93.7
16	16 13C2-PFDA	515.1 > 469.9	9.90e3	1.23e4	1.0000	0.910	4.90	4.95	8.07	8.87	88.7
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.35e4	1.45e4	1.0000	1.049	5.07	5.20	37.2	35.5	88.7
18	18 13C2-PFOA	414.9 > 369.7	1.23e4	1.23e4	1.0000	1.000	4.41	4.30	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.69e4	1.69e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.45e4	1.45e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

MJT 3/5/2018

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Dataset: Untitled

Last Altered: Monday, March 05, 2018 11:08:39 Pacific Standard Time

Printed: Monday, March 05, 2018 11:09:52 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180302G2-1	IPA	02-Mar-18	14:29:09
2	180302G2-2	ST180302G2-1 PFC CS-1 537 18B2310	02-Mar-18	14:41:11
3	180302G2-3	IPA	02-Mar-18	14:53:32
4	180302G2-4	B8B0160-BS1 LFB 0.25	02-Mar-18	15:05:59
5	180302G2-5	B8B0160-MS1 LFSM 0.28371	02-Mar-18	15:18:21
6	180302G2-6	B8B0160-MSD1 LFSMD 0.28333	02-Mar-18	15:30:45
7	180302G2-7	B8B0160-BLK1 LRB 0.25	02-Mar-18	15:43:11
8	180302G2-8	1800362-01 WI-A06-RW17-0218 0.27803	02-Mar-18	15:55:37
9	180302G2-9	1800362-02 WI-A06-RW17P-0218 0.27707	02-Mar-18	16:08:01
10	180302G2-10	1800362-03 WI-A06-FB02-022018 0.26676	02-Mar-18	16:20:27
11	180302G2-11	1800363-11 CH-AT-2FB58-0218 0.27863	02-Mar-18	16:32:51
12	180302G2-12	1800363-12 CH-AT-2FB58B-0218 0.26068	02-Mar-18	16:45:17
13	180302G2-13	1800363-13 CH-AT-2FB58C-0218 0.25509	02-Mar-18	16:57:37
14	180302G2-14	1800363-14 CH-AT-2FB58D-0218 0.25314	02-Mar-18	17:10:02
15	180302G2-15	1800363-15 CH-AT-1RW161-0218 0.27602	02-Mar-18	17:22:20
16	180302G2-16	1800363-16 CH-AT-1FB161-0218 0.28108	02-Mar-18	17:34:45
17	180302G2-17	1800363-17 CH-AT-1RW162-0218 0.25552	02-Mar-18	17:47:10
18	180302G2-18	1800363-18 CH-AT-1FB162-0218 0.26573	02-Mar-18	17:59:35
19	180302G2-19	1800363-19 CH-AT-1RW163-0218 0.28567	02-Mar-18	18:12:00
20	180302G2-20	1800363-20 CH-AT-1FB163-0218 0.25694	02-Mar-18	18:24:27
21	180302G2-21	1800363-21 CH-AT-1RW164-0218 0.28409	02-Mar-18	18:36:48
22	180302G2-22	1800363-22 CH-AT-1FB164-0218 0.25556	02-Mar-18	18:49:11
23	180302G2-23	IPA	02-Mar-18	19:01:36
24	180302G2-24	ST180302G2-2 PFC CS1 537 18B2304	02-Mar-18	19:14:04
25	180302G2-25	IPA	02-Mar-18	19:26:27
26	180302G2-26	B8B0169-BS1 LFB 0.25	02-Mar-18	19:38:52
27	180302G2-27	B8B0169-BSD1 LFB 0.25	02-Mar-18	19:51:16
28	180302G2-28	B8B0169-BLK1 LRB 0.25	02-Mar-18	20:03:46
29	180302G2-29	1800366-01 CH-AT-1RW165-0218 0.24548	02-Mar-18	20:16:07
30	180302G2-30	1800366-02 CH-AT-1FB165-0218 0.25404	02-Mar-18	20:28:30
31	180302G2-31	1800366-03 CH-AT-1RW166-0218 0.24491	02-Mar-18	20:40:56
32	180302G2-32	1800366-04 CH-AT-1FB166-0218 0.25454	02-Mar-18	20:53:17

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Last Altered: Monday, March 05, 2018 11:08:39 Pacific Standard Time

Printed: Monday, March 05, 2018 11:09:52 Pacific Standard Time

Compound name: PFBS

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33	180302G2-33	1800366-05 CH-AT-1RW167-0218 0.24782	02-Mar-18	21:05:34
34	180302G2-34	1800366-06 CH-AT-1FB167-0218 0.234	02-Mar-18	21:17:51
35	180302G2-35	1800366-07 CH-AT-1RW168-0218 0.24747	02-Mar-18	21:30:16
36	180302G2-36	1800366-08 CH-AT-1FB168-0218 0.2506	02-Mar-18	21:42:41
37	180302G2-37	1800366-09 CH-AT-1RW169-0218 0.25031	02-Mar-18	21:55:07
38	180302G2-38	1800366-10 CH-AT-1FB169-0218 0.24911	02-Mar-18	22:07:31
39	180302G2-39	1800366-11 CH-AT-1RW170-0218 0.24988	02-Mar-18	22:19:57
40	180302G2-40	1800366-12 CH-AT-1FB170-0218 0.25246	02-Mar-18	22:32:17
41	180302G2-41	1800359-01 IPR F. Rivera 0.25	02-Mar-18	22:44:35
42	180302G2-42	B8B0148-BS1 LFB 0.25	02-Mar-18	22:57:01
43	180302G2-43	B8B0148-BS2 LFB 0.25	02-Mar-18	23:09:25
44	180302G2-44	B8B0148-BS3 LFB 0.25	02-Mar-18	23:21:50
45	180302G2-45	B8B0148-BS4 LFB 0.25	02-Mar-18	23:34:15
46	180302G2-46	B8B0148-BLK1 LRB 0.25	02-Mar-18	23:46:40
47	180302G2-47	IPA	02-Mar-18	23:59:06
48	180302G2-48	ST180302G2-3 PFC CS2 537 18B2305	03-Mar-18	00:11:30
49	180302G2-49	IPA	03-Mar-18	00:23:54

Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-24.qld

Last Altered: Saturday, March 03, 2018 11:44:00 Pacific Standard Time

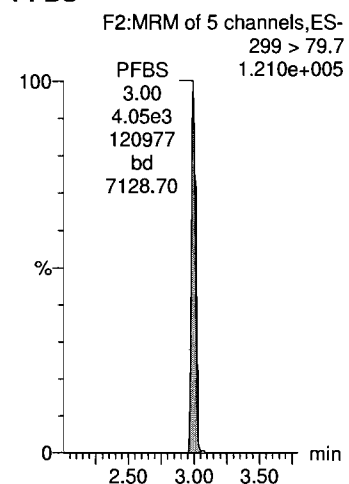
Printed: Monday, March 05, 2018 11:00:19 Pacific Standard Time

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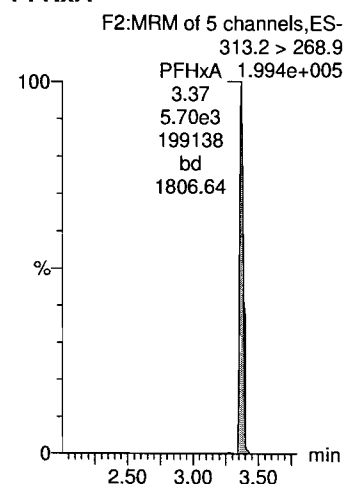
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Name: 180302G2-24, Date: 02-Mar-2018, Time: 19:14:04, ID: ST180302G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

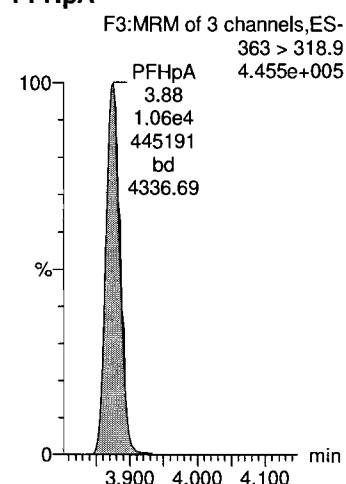
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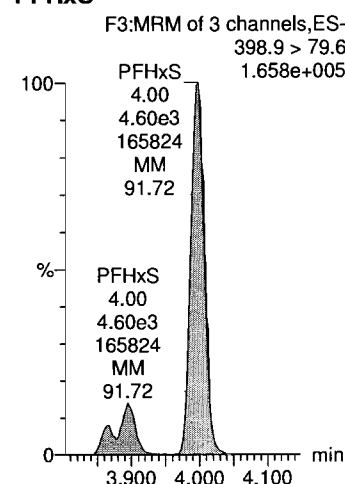
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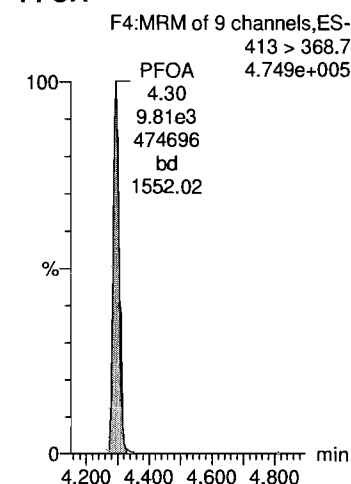
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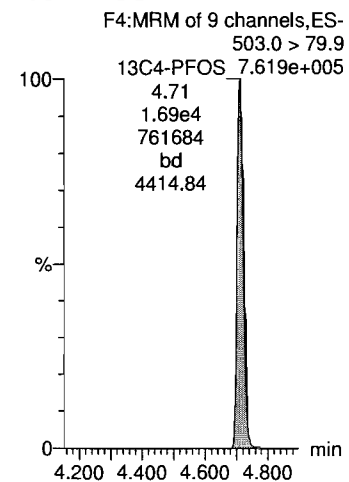
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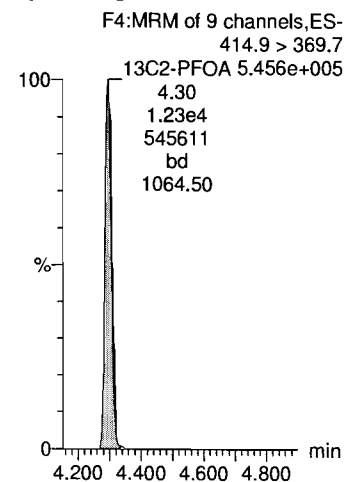
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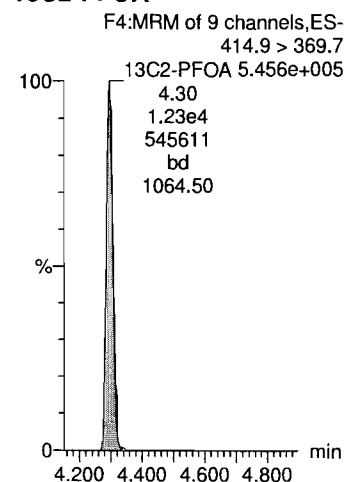
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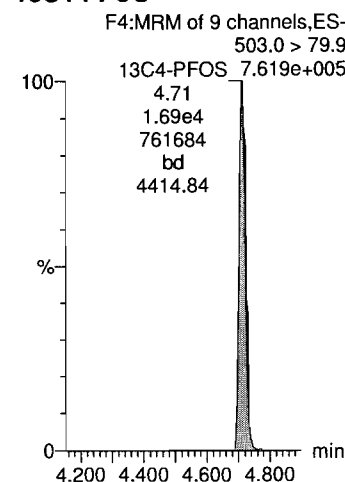
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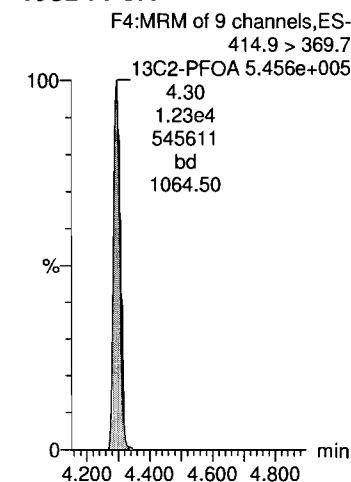
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13C4-PFOS



13C2-PFOA



MJT 3/5/2018

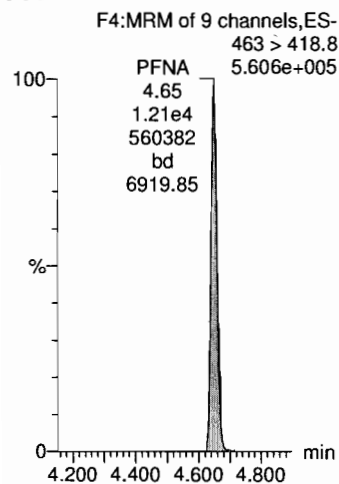
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Last Altered: Saturday, March 03, 2018 11:44:00 Pacific Standard Time

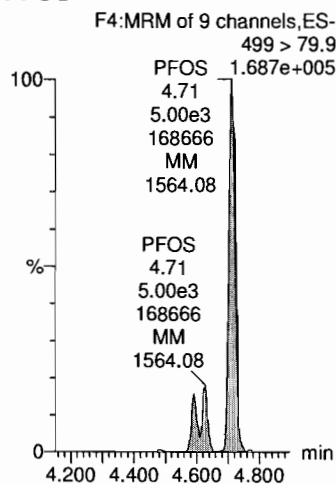
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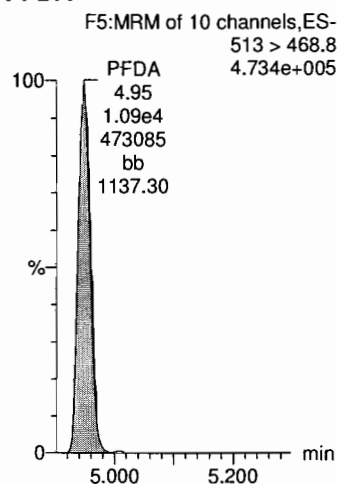
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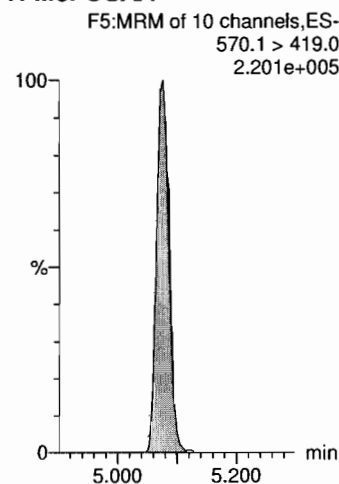
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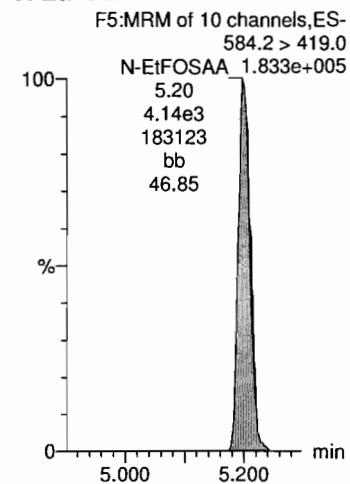
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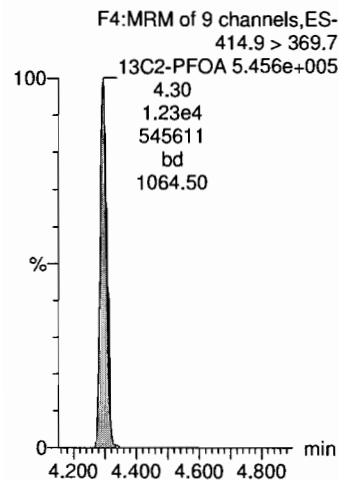
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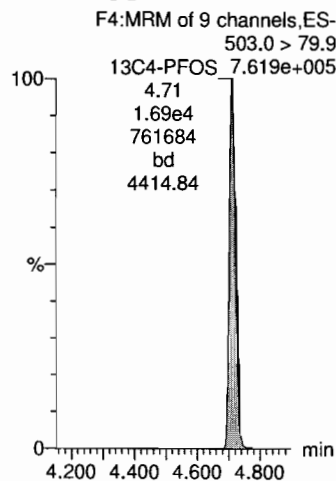
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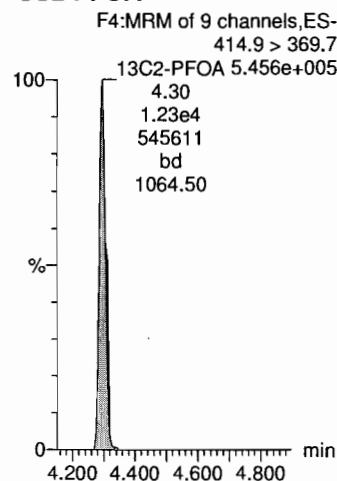
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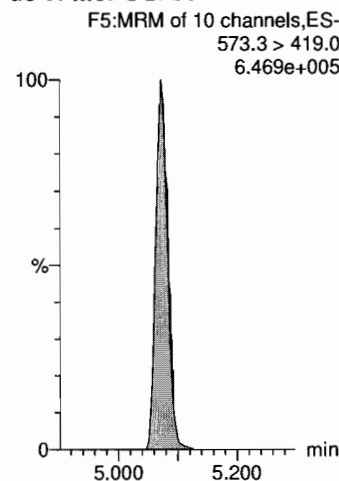
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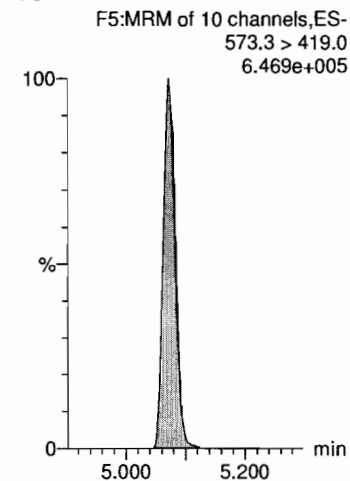
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d3-N-MeFOSAA



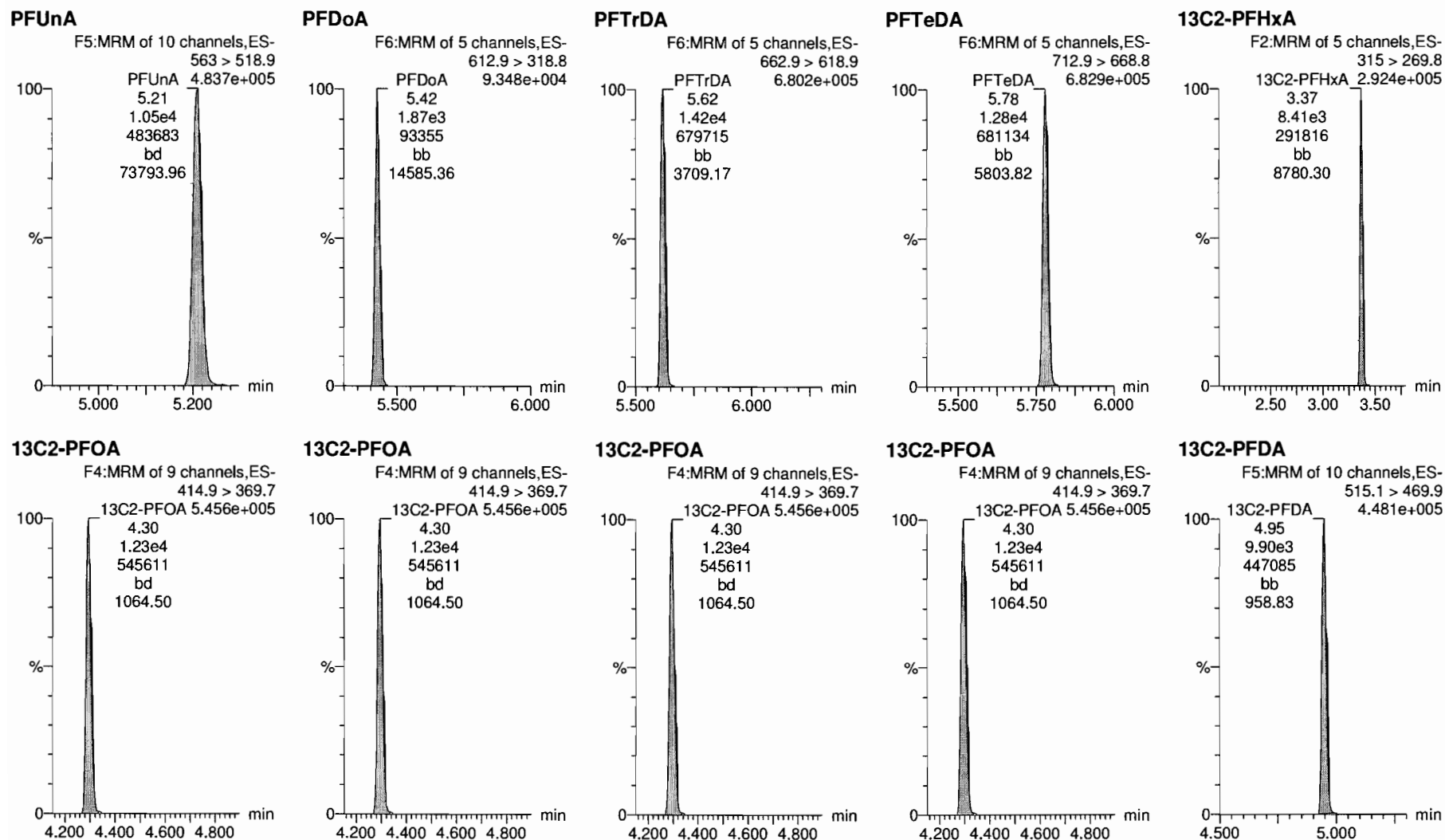
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Dataset: X:\G1.PRO\Results\2018\180302G2\180302G2-24.qld

Last Altered: Saturday, March 03, 2018 11:44:00 Pacific Standard Time
Printed: Monday, March 05, 2018 11:00:19 Pacific Standard Time

Name: 180302G2-24, Date: 02-Mar-2018, Time: 19:14:04, ID: ST180302G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304



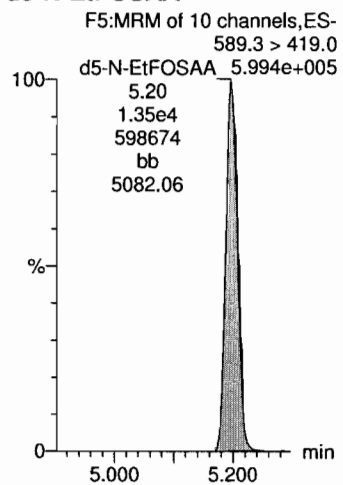
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Last Altered: Saturday, March 03, 2018 11:44:00 Pacific Standard Time

Printed: Monday, March 05, 2018 11:00:19 Pacific Standard Time

Name: 180302G2-24, Date: 02-Mar-2018, Time: 19:14:04, ID: ST180302G2-2 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304

d5-N-EtFOSAA



MJT 3/5/2018

INITIAL CALIBRATION (ICAL)
INCLUDING ASSOCIATED
INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time
Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

JA
02/24/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

Compound name: PFBS

Coefficient of Determination: $R^2 = 0.996349$

Calibration curve: $0.731202 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

MJT
2/23/18

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	0.443	3.01	198.814	16868.711	0.338	0.5	4.5	NO	0.996	NO	bb
2	2 180223G2_3	Standard	0.885	3.01	521.997	18929.600	0.791	1.1	22.3	NO	0.996	NO	bb
3	3 180223G2_4	Standard	1.770	3.02	909.253	19568.625	1.334	1.8	3.0	NO	0.996	NO	bb
4	4 180223G2_5	Standard	4.420	3.01	2203.222	17986.094	3.516	4.8	8.8	NO	0.996	NO	bb
5	5 180223G2_6	Standard	8.850	3.02	3827.673	17892.594	6.140	8.4	-5.1	NO	0.996	NO	bb
6	6 180223G2_7	Standard	22.100	3.01	9307.743	17798.180	15.009	20.5	-7.1	NO	0.996	NO	bb
7	7 180223G2_8	Standard	44.200	3.02	19324.398	16645.363	33.319	45.6	3.1	NO	0.996	NO	bb
8	8 180223G2_9	Standard	66.300	3.02	28018.547	15491.563	51.908	71.0	7.1	NO	0.996	NO	MMX
9	9 180223G2_10	Standard	88.400	3.02	37264.695	15634.240	68.407	93.6	5.8	NO	0.996	NO	MMX

Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.997717$

Calibration curve: $0.553475 * x$

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 180223G2_2	Standard	0.500	3.38	354.132	9097.107	0.389	0.7	40.7	NO	0.998	NO	MM
2	2 180223G2_3	Standard	1.000	3.38	711.273	9939.635	0.716	1.3	29.3	NO	0.998	NO	MM
3	3 180223G2_4	Standard	2.000	3.38	1173.079	9566.432	1.226	2.2	10.8	NO	0.998	NO	bb
4	4 180223G2_5	Standard	5.000	3.38	2646.081	8946.824	2.958	5.3	6.9	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	3.38	4344.971	8816.899	4.928	8.9	-11.0	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	3.38	11894.084	8696.680	13.677	24.7	-1.2	NO	0.998	NO	bb
7	7 180223G2_8	Standard	50.000	3.38	23477.408	8483.395	27.675	50.0	0.0	NO	0.998	NO	bb
8	8 180223G2_9	Standard	75.000	3.38	34391.449	8248.775	41.693	75.3	0.4	NO	0.998	NO	MM
9	9 180223G2_10	Standard	100.000	3.38	44779.535	7559.229	59.238	107.0	7.0	NO	0.998	NO	bbX

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Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.998875$

Calibration curve: $0.940423 * x$

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 180223G2_2	Standard	0.500	3.89	483.433	9097.107	0.531	0.6	13.0	NO	0.999	NO	bb
2	2 180223G2_3	Standard	1.000	3.89	1185.001	9939.635	1.192	1.3	26.8	NO	0.999	NO	bb
3	3 180223G2_4	Standard	2.000	3.89	1948.822	9566.432	2.037	2.2	8.3	NO	0.999	NO	bb
4	4 180223G2_5	Standard	5.000	3.89	4527.533	8946.824	5.060	5.4	7.6	NO	0.999	NO	bb
5	5 180223G2_6	Standard	10.000	3.89	7941.743	8816.899	9.007	9.6	-4.2	NO	0.999	NO	MM
6	6 180223G2_7	Standard	25.000	3.89	19776.438	8696.680	22.740	24.2	-3.3	NO	0.999	NO	bb
7	7 180223G2_8	Standard	50.000	3.89	39949.883	8483.395	47.092	50.1	0.2	NO	0.999	NO	MM
8	8 180223G2_9	Standard	75.000	3.89	58401.840	8248.775	70.801	75.3	0.4	NO	0.999	NO	bb
9	9 180223G2_10	Standard	100.000	3.89	74943.813	7559.229	99.142	105.4	5.4	NO	0.999	NO	bbX

Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.997652$

Calibration curve: $0.699727 * x$

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 180223G2_2	Standard	0.455	4.01	218.022	16868.711	0.371	0.5	16.5	NO	0.998	NO	MM
2	2 180223G2_3	Standard	0.910	4.01	506.356	18929.600	0.768	1.1	20.6	NO	0.998	NO	MM
3	3 180223G2_4	Standard	1.820	4.01	943.059	19568.625	1.383	2.0	8.6	NO	0.998	NO	MM
4	4 180223G2_5	Standard	4.560	4.01	2125.416	17986.094	3.391	4.8	6.3	NO	0.998	NO	MM
5	5 180223G2_6	Standard	9.120	4.01	3769.145	17892.594	6.046	8.6	-5.3	NO	0.998	NO	MM
6	6 180223G2_7	Standard	22.800	4.01	9441.263	17798.180	15.224	21.8	-4.6	NO	0.998	NO	MM
7	7 180223G2_8	Standard	45.600	4.01	18837.053	16645.363	32.479	46.4	1.8	NO	0.998	NO	MM
8	8 180223G2_9	Standard	68.400	4.01	26492.680	15491.563	49.081	70.1	2.5	NO	0.998	NO	MMX
9	9 180223G2_10	Standard	91.200	4.01	36343.625	15634.240	66.717	95.3	4.5	NO	0.998	NO	MMX

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Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

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Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998447$

Calibration curve: $0.83774 * x$

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 180223G2_2	Standard	0.500	4.31	444.616	9097.107	0.489	0.6	16.7	NO	0.998	NO	MMX
2	2 180223G2_3	Standard	1.000	4.31	1106.276	9939.635	1.113	1.3	32.9	NO	0.998	NO	bb
3	3 180223G2_4	Standard	2.000	4.31	1805.433	9566.432	1.887	2.3	12.6	NO	0.998	NO	MM
4	4 180223G2_5	Standard	5.000	4.31	4055.906	8946.824	4.533	5.4	8.2	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	4.31	6970.526	8816.899	7.906	9.4	-5.6	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	4.31	17861.994	8696.680	20.539	24.5	-1.9	NO	0.998	NO	bb
7	7 180223G2_8	Standard	50.000	4.31	35483.926	8483.395	41.828	49.9	-0.1	NO	0.998	NO	MM
8	8 180223G2_9	Standard	75.000	4.31	51913.281	8248.775	62.935	75.1	0.2	NO	0.998	NO	bb
9	9 180223G2_10	Standard	100.000	4.31	68504.563	7559.229	90.624	108.2	8.2	NO	0.998	NO	bbX

Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999615$

Calibration curve: $1.01645 * x$

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 180223G2_2	Standard	0.500	4.65	563.949	9097.107	0.620	0.6	22.0	NO	1.000	NO	bb
2	2 180223G2_3	Standard	1.000	4.65	1157.372	9939.635	1.164	1.1	14.6	NO	1.000	NO	MM
3	3 180223G2_4	Standard	2.000	4.65	1920.400	9566.432	2.007	2.0	-1.3	NO	1.000	NO	bb
4	4 180223G2_5	Standard	5.000	4.65	4575.846	8946.824	5.114	5.0	0.6	NO	1.000	NO	bb
5	5 180223G2_6	Standard	10.000	4.65	8764.228	8816.899	9.940	9.8	-2.2	NO	1.000	NO	bd
6	6 180223G2_7	Standard	25.000	4.65	22423.768	8696.680	25.784	25.4	1.5	NO	1.000	NO	bb
7	7 180223G2_8	Standard	50.000	4.65	42865.504	8483.395	50.529	49.7	-0.6	NO	1.000	NO	bb
8	8 180223G2_9	Standard	75.000	4.65	62783.340	8248.775	76.112	74.9	-0.2	NO	1.000	NO	bd
9	9 180223G2_10	Standard	100.000	4.65	84539.195	7559.229	111.836	110.0	10.0	NO	1.000	NO	bbX

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

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Compound name: PFOS

Coefficient of Determination: $R^2 = 0.999243$

Calibration curve: $0.960258 * x$

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 180223G2_2	Standard	0.464	4.71	240.346	16868.711	0.409	0.4	-8.2	NO	0.999	NO	MM
2	2 180223G2_3	Standard	0.925	4.71	578.990	18929.600	0.878	0.9	-1.2	NO	0.999	NO	MM
3	3 180223G2_4	Standard	1.850	4.72	1246.784	19568.625	1.829	1.9	2.9	NO	0.999	NO	MM
4	4 180223G2_5	Standard	4.625	4.71	2839.078	17986.094	4.530	4.7	2.0	NO	0.999	NO	MM
5	5 180223G2_6	Standard	9.250	4.71	5482.640	17892.594	8.794	9.2	-1.0	NO	0.999	NO	MM
6	6 180223G2_7	Standard	23.100	4.71	13237.046	17798.180	21.345	22.2	-3.8	NO	0.999	NO	MM
7	7 180223G2_8	Standard	46.200	4.71	26212.029	16645.363	45.195	47.1	1.9	NO	0.999	NO	MM
8	8 180223G2_9	Standard	69.300	4.71	38823.871	15491.563	71.926	74.9	8.1	NO	0.999	NO	MMX
9	9 180223G2_10	Standard	92.400	4.72	54783.223	15634.240	100.566	104.7	13.3	NO	0.999	NO	MMX

Compound name: PFDA

Coefficient of Determination: $R^2 = 0.997317$

Calibration curve: $1.0203 * x$

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 180223G2_2	Standard	0.500	4.95	595.268	9097.107	0.654	0.6	28.3	NO	0.997	NO	bb
2	2 180223G2_3	Standard	1.000	4.95	1092.503	9939.635	1.099	1.1	7.7	NO	0.997	NO	MM
3	3 180223G2_4	Standard	2.000	4.95	2348.901	9566.432	2.455	2.4	20.3	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	4.95	5082.690	8946.824	5.681	5.6	11.4	NO	0.997	NO	bb
5	5 180223G2_6	Standard	10.000	4.95	9182.706	8816.899	10.415	10.2	2.1	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	4.95	23729.313	8696.680	27.285	26.7	7.0	NO	0.997	NO	bb
7	7 180223G2_8	Standard	50.000	4.95	42435.055	8483.395	50.021	49.0	-1.9	NO	0.997	NO	bb
8	8 180223G2_9	Standard	75.000	4.95	61296.219	8248.775	74.309	72.8	-2.9	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	4.95	86878.820	7559.229	114.931	112.6	12.6	NO	0.997	NO	bbX

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Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996817$

Calibration curve: $1.4828 * x$

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 180223G2_2	Standard	0.500	5.07	216.499	12707.717	0.681	0.5	-8.1	NO	0.997	NO	MM
2	2 180223G2_3	Standard	1.000	5.07	405.579	13652.991	1.188	0.8	-19.9	NO	0.997	NO	bb
3	3 180223G2_4	Standard	2.000	5.07	807.999	11741.213	2.753	1.9	-7.2	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	5.07	2570.225	14071.951	7.306	4.9	-1.5	NO	0.997	NO	bd
5	5 180223G2_6	Standard	10.000	5.07	4020.162	12882.572	12.482	8.4	-15.8	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	5.07	11394.728	13583.305	33.555	22.6	-9.5	NO	0.997	NO	bd
7	7 180223G2_8	Standard	50.000	5.07	22109.602	12346.496	71.630	48.3	-3.4	NO	0.997	NO	MM
8	8 180223G2_9	Standard	75.000	5.07	34154.773	11885.659	114.944	77.5	3.4	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	5.07	48529.656	12638.679	153.591	103.6	3.6	NO	0.997	NO	MM

Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.993395$

Calibration curve: $1.05983 * x$

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 180223G2_2	Standard	0.500	5.20	154.728	12707.717	0.487	0.5	-8.1	NO	0.993	NO	bb
2	2 180223G2_3	Standard	1.000	5.20	373.410	13652.991	1.094	1.0	3.2	NO	0.993	NO	MM
3	3 180223G2_4	Standard	2.000	5.20	628.798	11741.213	2.142	2.0	1.1	NO	0.993	NO	bb
4	4 180223G2_5	Standard	5.000	5.20	1653.245	14071.951	4.699	4.4	-11.3	NO	0.993	NO	bb
5	5 180223G2_6	Standard	10.000	5.20	3759.236	12882.572	11.672	11.0	10.1	NO	0.993	NO	bb
6	6 180223G2_7	Standard	25.000	5.20	9480.810	13583.305	27.919	26.3	5.4	NO	0.993	NO	bd
7	7 180223G2_8	Standard	50.000	5.20	17892.572	12346.496	57.968	54.7	9.4	NO	0.993	NO	bd
8	8 180223G2_9	Standard	75.000	5.20	24490.510	11885.659	82.420	77.8	3.7	NO	0.993	NO	bb
9	9 180223G2_10	Standard	100.000	5.20	30383.941	12638.679	96.162	90.7	-9.3	NO	0.993	NO	bb

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Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.999540$

Calibration curve: $1.00493 * x$

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 180223G2_2	Standard	0.500	5.21	522.451	9097.107	0.574	0.6	14.3	NO	1.000	NO	bb
2	2 180223G2_3	Standard	1.000	5.20	1059.691	9939.635	1.066	1.1	6.1	NO	1.000	NO	bb
3	3 180223G2_4	Standard	2.000	5.21	1984.447	9566.432	2.074	2.1	3.2	NO	1.000	NO	bb
4	4 180223G2_5	Standard	5.000	5.21	4406.931	8946.824	4.926	4.9	-2.0	NO	1.000	NO	bb
5	5 180223G2_6	Standard	10.000	5.21	9202.060	8816.899	10.437	10.4	3.9	NO	1.000	NO	MM
6	6 180223G2_7	Standard	25.000	5.21	22094.332	8696.680	25.405	25.3	1.1	NO	1.000	NO	bb
7	7 180223G2_8	Standard	50.000	5.21	41571.934	8483.395	49.004	48.8	-2.5	NO	1.000	NO	bb
8	8 180223G2_9	Standard	75.000	5.21	62562.047	8248.775	75.844	75.5	0.6	NO	1.000	NO	bb
9	9 180223G2_10	Standard	100.000	5.21	78905.391	7559.229	104.383	103.9	3.9	NO	1.000	NO	bbX

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995506$

Calibration curve: $0.158397 * x$

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 180223G2_2	Standard	0.500	5.43	59.313	9097.107	0.065	0.4	-17.7	NO	0.996	NO	bb
2	2 180223G2_3	Standard	1.000	5.43	144.899	9939.635	0.146	0.9	-8.0	NO	0.996	NO	bb
3	3 180223G2_4	Standard	2.000	5.43	316.583	9566.432	0.331	2.1	4.5	NO	0.996	NO	bb
4	4 180223G2_5	Standard	5.000	5.42	872.572	8946.824	0.975	6.2	23.1	NO	0.996	NO	bb
5	5 180223G2_6	Standard	10.000	5.43	1223.185	8816.899	1.387	8.8	-12.4	NO	0.996	NO	bb
6	6 180223G2_7	Standard	25.000	5.43	3603.039	8696.680	4.143	26.2	4.6	NO	0.996	NO	bb
7	7 180223G2_8	Standard	50.000	5.43	6975.865	8483.395	8.223	51.9	3.8	NO	0.996	NO	bb
8	8 180223G2_9	Standard	75.000	5.42	9419.647	8248.775	11.419	72.1	-3.9	NO	0.996	NO	bb
9	9 180223G2_10	Standard	100.000	5.43	10426.521	7559.229	13.793	87.1	-12.9	NO	0.996	NO	bbX

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Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.997291$

Calibration curve: $1.3743 * x$

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 180223G2_2	Standard	0.500	5.61	726.707	9097.107	0.799	0.6	16.3	NO	0.997	NO	bd
2	2 180223G2_3	Standard	1.000	5.61	1605.347	9939.635	1.615	1.2	17.5	NO	0.997	NO	bb
3	3 180223G2_4	Standard	2.000	5.61	3192.247	9566.432	3.337	2.4	21.4	NO	0.997	NO	bb
4	4 180223G2_5	Standard	5.000	5.61	6533.214	8946.824	7.302	5.3	6.3	NO	0.997	NO	bb
5	5 180223G2_6	Standard	10.000	5.61	12468.454	8816.899	14.142	10.3	2.9	NO	0.997	NO	bb
6	6 180223G2_7	Standard	25.000	5.61	32196.830	8696.680	37.022	26.9	7.8	NO	0.997	NO	MM
7	7 180223G2_8	Standard	50.000	5.62	56222.504	8483.395	66.274	48.2	-3.6	NO	0.997	NO	bb
8	8 180223G2_9	Standard	75.000	5.61	83378.453	8248.775	101.080	73.5	-1.9	NO	0.997	NO	bb
9	9 180223G2_10	Standard	100.000	5.61	109636.859	7559.229	145.037	105.5	5.5	NO	0.997	NO	bbX

Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998250$

Calibration curve: $1.24932 * x$

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 180223G2_2	Standard	0.500	5.79	611.723	9097.107	0.672	0.5	7.6	NO	0.998	NO	MM
2	2 180223G2_3	Standard	1.000	5.79	1435.181	9939.635	1.444	1.2	15.6	NO	0.998	NO	bb
3	3 180223G2_4	Standard	2.000	5.78	2593.027	9566.432	2.711	2.2	8.5	NO	0.998	NO	MM
4	4 180223G2_5	Standard	5.000	5.78	6228.092	8946.824	6.961	5.6	11.4	NO	0.998	NO	bb
5	5 180223G2_6	Standard	10.000	5.78	11576.812	8816.899	13.130	10.5	5.1	NO	0.998	NO	bb
6	6 180223G2_7	Standard	25.000	5.79	28530.078	8696.680	32.806	26.3	5.0	NO	0.998	NO	MM
7	7 180223G2_8	Standard	50.000	5.79	52361.477	8483.395	61.722	49.4	-1.2	NO	0.998	NO	bd
8	8 180223G2_9	Standard	75.000	5.79	75116.234	8248.775	91.064	72.9	-2.8	NO	0.998	NO	MM
9	9 180223G2_10	Standard	100.000	5.79	102852.344	7559.229	136.062	108.9	8.9	NO	0.998	NO	MMX

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Compound name: 13C2-PFHxA

Response Factor: 0.731379

RRF SD: 0.0238184, Relative SD: 3.25663

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 180223G2_2	Standard	10.000	3.38	6700.987	9097.107	7.366	10.1	0.7	NO		NO	bd
2	2 180223G2_3	Standard	10.000	3.38	7319.206	9939.635	7.364	10.1	0.7	NO		NO	bb
3	3 180223G2_4	Standard	10.000	3.38	6577.065	9566.432	6.875	9.4	-6.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	3.38	6657.985	8946.824	7.442	10.2	1.7	NO		NO	bb
5	5 180223G2_6	Standard	10.000	3.38	6290.871	8816.899	7.135	9.8	-2.4	NO		NO	bb
6	6 180223G2_7	Standard	10.000	3.38	6250.375	8696.680	7.187	9.8	-1.7	NO		NO	bb
7	7 180223G2_8	Standard	10.000	3.38	6455.338	8483.395	7.609	10.4	4.0	NO		NO	bb
8	8 180223G2_9	Standard	10.000	3.38	6213.207	8248.775	7.532	10.3	3.0	NO		NO	bb
9	9 180223G2_10	Standard	10.000	3.38	6040.483	7559.229	7.991	10.9	9.3	NO		NO	bbX

Compound name: 13C2-PFDA

Response Factor: 0.909838

RRF SD: 0.0477189, Relative SD: 5.24477

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 180223G2_2	Standard	10.000	4.95	7725.546	9097.107	8.492	9.3	-6.7	NO		NO	bb
2	2 180223G2_3	Standard	10.000	4.95	8959.234	9939.635	9.014	9.9	-0.9	NO		NO	MM
3	3 180223G2_4	Standard	10.000	4.95	8703.722	9566.432	9.098	10.0	-0.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	4.95	8332.058	8946.824	9.313	10.2	2.4	NO		NO	bb
5	5 180223G2_6	Standard	10.000	4.95	7919.763	8816.899	8.982	9.9	-1.3	NO		NO	bb
6	6 180223G2_7	Standard	10.000	4.95	8753.030	8696.680	10.065	11.1	10.6	NO		NO	bb
7	7 180223G2_8	Standard	10.000	4.95	7796.922	8483.395	9.191	10.1	1.0	NO		NO	bb
8	8 180223G2_9	Standard	10.000	4.95	7120.327	8248.775	8.632	9.5	-5.1	NO		NO	bb
9	9 180223G2_10	Standard	10.000	4.95	7540.862	7559.229	9.976	11.0	9.6	NO		NO	bbX

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Compound name: d5-N-EtFOSAA

Response Factor: 1.04937

RRF SD: 0.099298, Relative SD: 9.46259

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 180223G2_2	Standard	40.000	5.19	11991.277	12707.717	37.745	36.0	-10.1	NO		NO	bb
2	2 180223G2_3	Standard	40.000	5.19	16726.662	13652.991	49.005	46.7	16.7	NO		NO	bb
3	3 180223G2_4	Standard	40.000	5.19	14092.588	11741.213	48.011	45.8	14.4	NO		NO	bb
4	4 180223G2_5	Standard	40.000	5.19	14119.112	14071.951	40.134	38.2	-4.4	NO		NO	bb
5	5 180223G2_6	Standard	40.000	5.19	13679.503	12882.572	42.474	40.5	1.2	NO		NO	bb
6	6 180223G2_7	Standard	40.000	5.19	14178.573	13583.305	41.753	39.8	-0.5	NO		NO	bd
7	7 180223G2_8	Standard	40.000	5.19	12425.209	12346.496	40.255	38.4	-4.1	NO		NO	bb
8	8 180223G2_9	Standard	40.000	5.19	11514.227	11885.659	38.750	36.9	-7.7	NO		NO	bb
9	9 180223G2_10	Standard	40.000	5.19	12527.367	12638.679	39.648	37.8	-5.5	NO		NO	bd

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180223G2_2	Standard	10.000	4.31	9097.107	9097.107	10.000	10.0	0.0	NO		NO	bb
2	2 180223G2_3	Standard	10.000	4.31	9939.635	9939.635	10.000	10.0	0.0	NO		NO	bb
3	3 180223G2_4	Standard	10.000	4.31	9566.432	9566.432	10.000	10.0	0.0	NO		NO	bb
4	4 180223G2_5	Standard	10.000	4.31	8946.824	8946.824	10.000	10.0	0.0	NO		NO	bb
5	5 180223G2_6	Standard	10.000	4.31	8816.899	8816.899	10.000	10.0	0.0	NO		NO	bb
6	6 180223G2_7	Standard	10.000	4.31	8696.680	8696.680	10.000	10.0	0.0	NO		NO	bd
7	7 180223G2_8	Standard	10.000	4.31	8483.395	8483.395	10.000	10.0	0.0	NO		NO	bd
8	8 180223G2_9	Standard	10.000	4.31	8248.775	8248.775	10.000	10.0	0.0	NO		NO	bb
9	9 180223G2_10	Standard	10.000	4.31	7559.229	7559.229	10.000	10.0	0.0	NO		NO	bbX

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Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 1.35974e-016, Relative SD: 1.35974e-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 180223G2_2	Standard	28.700	4.71	16868.711	16868.711	28.700	28.7	0.0	NO		NO	bd
2	2 180223G2_3	Standard	28.700	4.71	18929.600	18929.600	28.700	28.7	0.0	NO		NO	MM
3	3 180223G2_4	Standard	28.700	4.71	19568.625	19568.625	28.700	28.7	0.0	NO		NO	bd
4	4 180223G2_5	Standard	28.700	4.71	17986.094	17986.094	28.700	28.7	0.0	NO		NO	bd
5	5 180223G2_6	Standard	28.700	4.71	17892.594	17892.594	28.700	28.7	0.0	NO		NO	bd
6	6 180223G2_7	Standard	28.700	4.71	17798.180	17798.180	28.700	28.7	0.0	NO		NO	bb
7	7 180223G2_8	Standard	28.700	4.71	16645.363	16645.363	28.700	28.7	0.0	NO		NO	bb
8	8 180223G2_9	Standard	28.700	4.71	15491.563	15491.563	28.700	28.7	0.0	NO		NO	bbX
9	9 180223G2_10	Standard	28.700	4.71	15634.240	15634.240	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 180223G2_2	Standard	40.000	5.07	12707.717	12707.717	40.000	40.0	0.0	NO		NO	bb
2	2 180223G2_3	Standard	40.000	5.07	13652.991	13652.991	40.000	40.0	0.0	NO		NO	bb
3	3 180223G2_4	Standard	40.000	5.07	11741.213	11741.213	40.000	40.0	0.0	NO		NO	bd
4	4 180223G2_5	Standard	40.000	5.07	14071.951	14071.951	40.000	40.0	0.0	NO		NO	bd
5	5 180223G2_6	Standard	40.000	5.07	12882.572	12882.572	40.000	40.0	0.0	NO		NO	bd
6	6 180223G2_7	Standard	40.000	5.07	13583.305	13583.305	40.000	40.0	0.0	NO		NO	bb
7	7 180223G2_8	Standard	40.000	5.07	12346.496	12346.496	40.000	40.0	0.0	NO		NO	bb
8	8 180223G2_9	Standard	40.000	5.07	11885.659	11885.659	40.000	40.0	0.0	NO		NO	bb
9	9 180223G2_10	Standard	40.000	5.07	12638.679	12638.679	40.000	40.0	0.0	NO		NO	MM

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Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:22:19 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

	# Name	IS#	CoD	CoD Flag	%RSD
1	1 PFBS	19	0.9963	NO	
2	2 PFHxA	18	0.9977	NO	
3	3 PFHpA	18	0.9989	NO	
4	4 PFHxS	19	0.9977	NO	
5	5 PFOA	18	0.9984	NO	
6	6 PFNA	18	0.9996	NO	
7	7 PFOS	19	0.9992	NO	
8	8 PFDA	18	0.9973	NO	
9	9 N-MeFOSAA	20	0.9968	NO	
10	10 N-EtFOSAA	20	0.9934	NO	
11	11 PFUnA	18	0.9995	NO	
12	12 PFDoA	18	0.9955	NO	
13	13 PFTTrDA	18	0.9973	NO	
14	14 PFTeDA	18	0.9982	NO	
15	15 13C2-PFHxA	18		NO	3.257
16	16 13C2-PFDA	18		NO	5.245
17	17 d5-N-EtFOSAA	20		NO	9.463
18	18 13C2-PFOA	18		NO	0.000
19	19 13C4-PFOS	19		NO	0.000
20	20 d3-N-MeFOSAA	20		NO	0.000

Dataset: Untitled

Last Altered: Friday, February 23, 2018 17:34:09 Pacific Standard Time

Printed: Friday, February 23, 2018 17:36:22 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180223G2_1	IPA	23-Feb-18	13:17:36
2	180223G2_2	ST180223G2-1 PFC CS-3 537 18B2301	23-Feb-18	13:29:59
3	180223G2_3	ST180223G2-2 PFC CS-2 537 18B2302	23-Feb-18	13:42:20
4	180223G2_4	ST180223G2-3 PFC CS-1 537 18B2310	23-Feb-18	13:54:45
5	180223G2_5	ST180222G3-4 PFC CS0 537 18B2303	23-Feb-18	14:07:10
6	180223G2_6	ST180223G2-5 PFC CS1 537 18B2304	23-Feb-18	14:19:35
7	180223G2_7	ST180223G2-6 PFC CS2 537 18B2305	23-Feb-18	14:32:01
8	180223G2_8	ST180223G2-7 PFC CS3 537 18B2306	23-Feb-18	14:44:25
9	180223G2_9	ST180223G2-8 PFC CS4 537 18B2307	23-Feb-18	14:56:52
10	180223G2_10	ST180223G2-9 PFC CS5 537 18B2308	23-Feb-18	15:09:16
11	180223G2_11	IPA	23-Feb-18	15:21:37
12	180223G2_12	ICV180223G2-1 PFC ICV 537 18B2309	23-Feb-18	15:34:05
13	180223G2_13	IPA	23-Feb-18	15:46:26

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Compound 18: 13C2-PFOA

high 9939.64 RPD
low 8248.78 18.59

ID	Name	Type	Std. CRT		Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	10	4.31	9097.11	9097.11	10 bb
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	10	4.31	9939.64	9939.64	10 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	10	4.31	9566.43	9566.43	10 bb
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	10	4.31	8946.82	8946.82	10 bb
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	10	4.31	8816.90	8816.90	10 bb
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	10	4.31	8696.68	8696.68	10 bd
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	10	4.31	8483.40	8483.40	10 bd
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	10	4.31	8248.78	8248.78	10 bb
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	10	4.31	7559.23	7559.23	10 bbX
						average	
						8974.47	

Compound 19: 13C4-PFOS

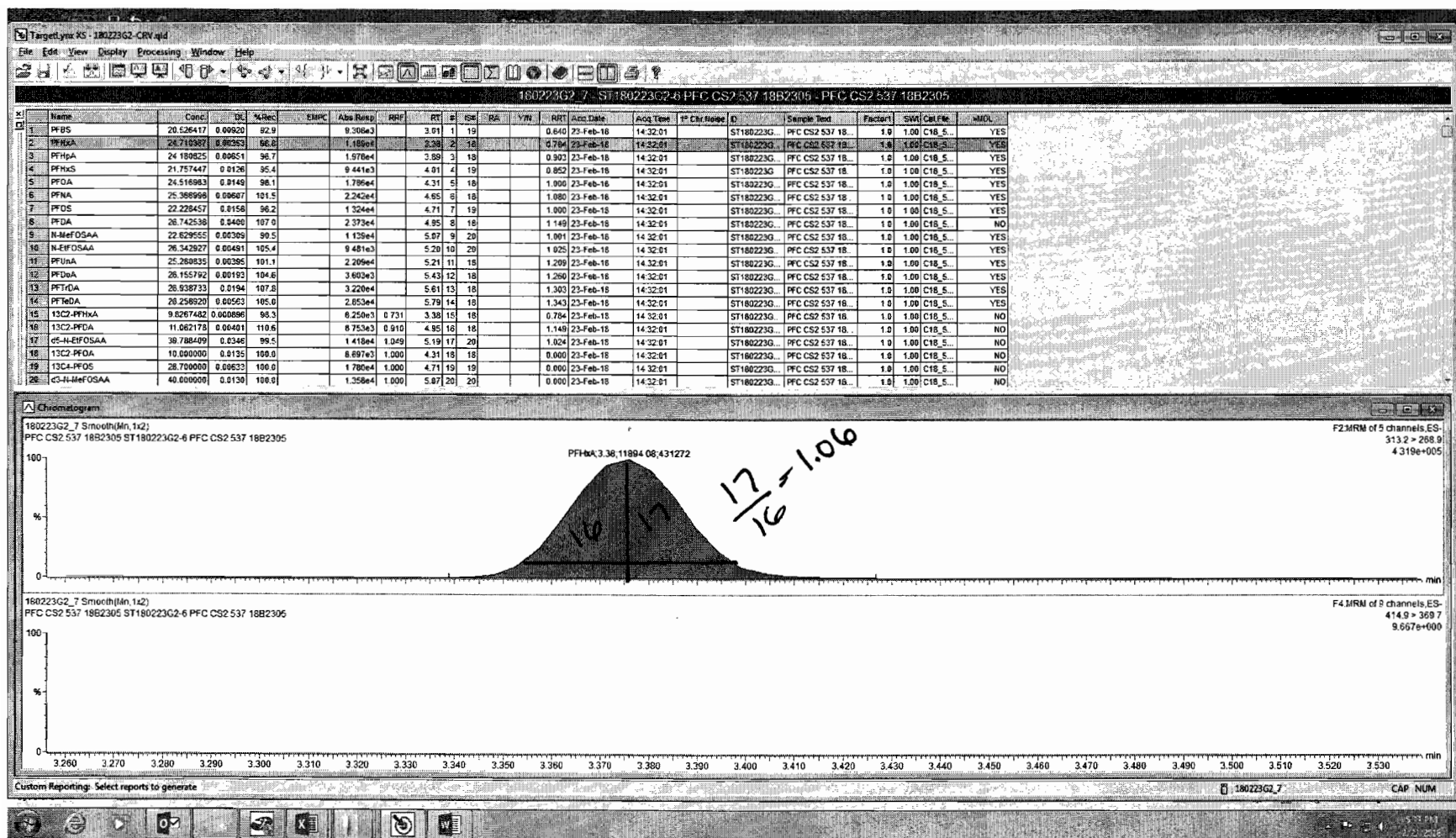
high 19568.625 RPD
low 16645.363 16.14

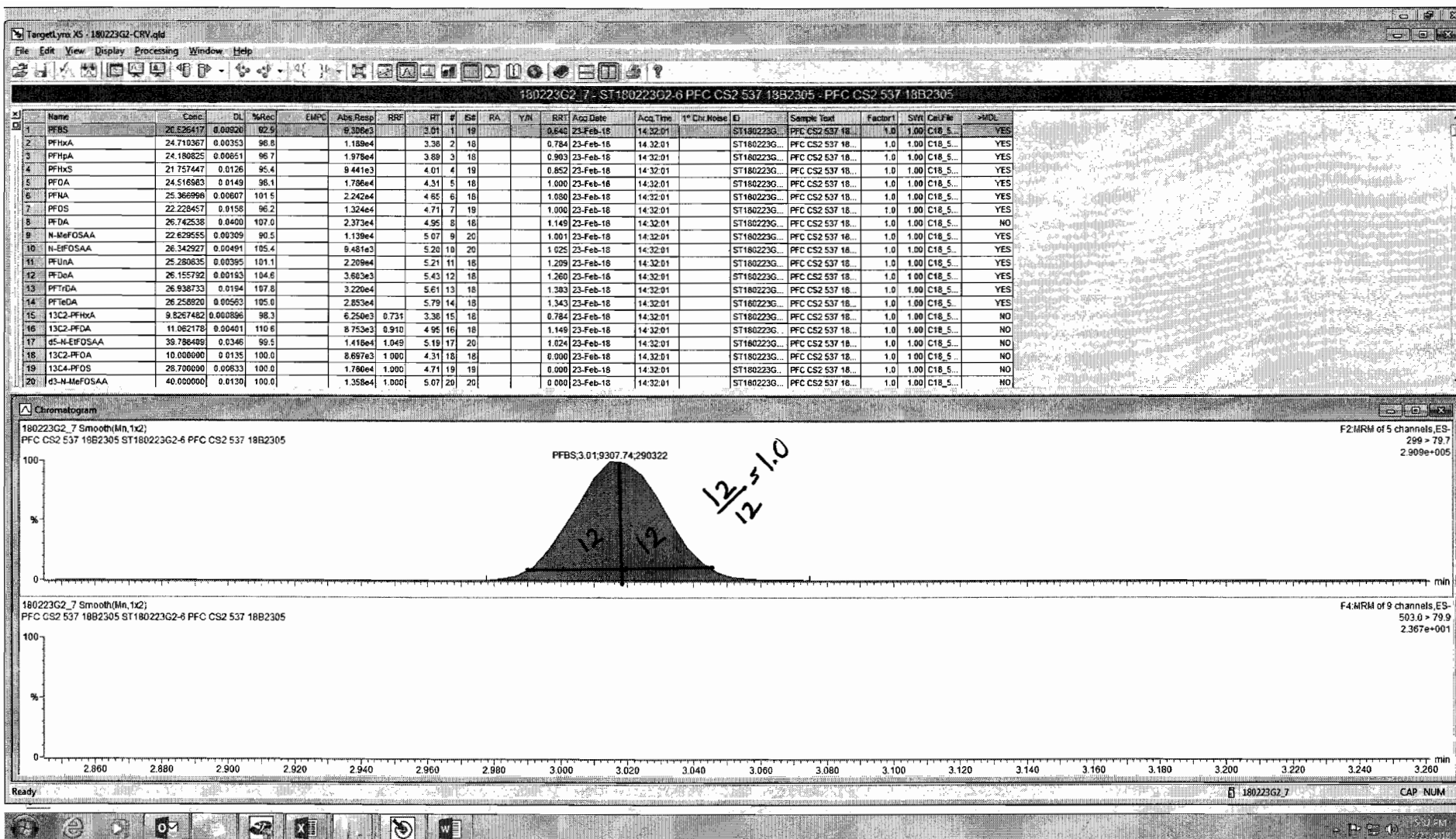
ID	Name	Type	Std. CRT		Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	28.7	4.71	16868.71	16868.71	28.7 bd
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	28.7	4.71	18923.35	18783.59	28.7 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	28.7	4.71	19568.63	19568.63	28.7 bd
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	28.7	4.71	17986.09	17986.09	28.7 bd
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	28.7	4.71	17892.59	17892.59	28.7 bd
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	28.7	4.71	17798.18	17798.18	28.7 bb
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	28.7	4.71	16645.36	16645.36	28.7 bb
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	28.7	4.71	15491.56	15491.56	28.7 bbX
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	28.7	4.71	15634.24	15634.24	28.7 bbX
						average	
						17934.74	

Compound 20: d3-N-MeFOSAA

high	14071.95	RPD
low	11741.21	18.06

ID	Name	Type	Std. CRT	Area	IS Area	Respo Primary Flags
1 ST180223G2-1 PFC CS-3 537 18B2301	180223G2_2	Analyte	40 5.07	12707.72	12707.72	40 bb
2 ST180223G2-2 PFC CS-2 537 18B2302	180223G2_3	Analyte	40 5.07	13652.99	13652.99	40 bb
3 ST180223G2-3 PFC CS-1 537 18B2310	180223G2_4	Standard	40 5.07	11741.21	11741.21	40 bd
4 ST180222G3-4 PFC CS0 537 18B2303	180223G2_5	Standard	40 5.07	14071.95	14071.95	40 bd
5 ST180223G2-5 PFC CS1 537 18B2304	180223G2_6	Standard	40 5.07	12882.57	12882.57	40 bd
6 ST180223G2-6 PFC CS2 537 18B2305	180223G2_7	Standard	40 5.07	13583.31	13583.31	40 bb
7 ST180223G2-7 PFC CS3 537 18B2306	180223G2_8	Standard	40 5.07	12346.50	12346.50	40 bb
8 ST180223G2-8 PFC CS4 537 18B2307	180223G2_9	Standard	40 5.07	11885.66	11885.66	40 bb
9 ST180223G2-9 PFC CS5 537 18B2308	180223G2_10	Standard	40 5.07	12557.49	12557.49	40 bb
				average	12825.49	





Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

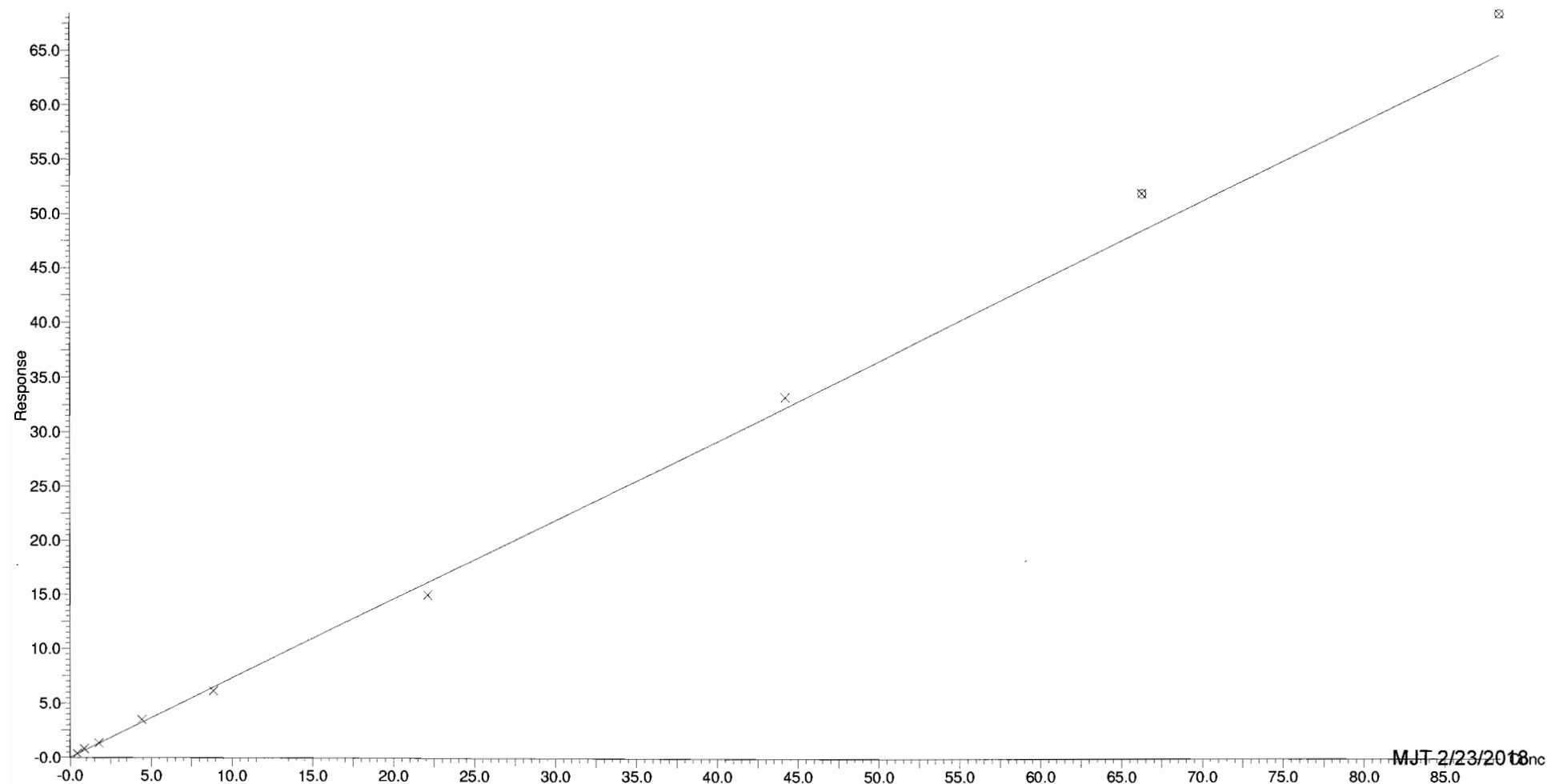
Compound name: PFBS

Coefficient of Determination: $R^2 = 0.996349$

Calibration curve: $0.731202 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT-2/23/2018 inc

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

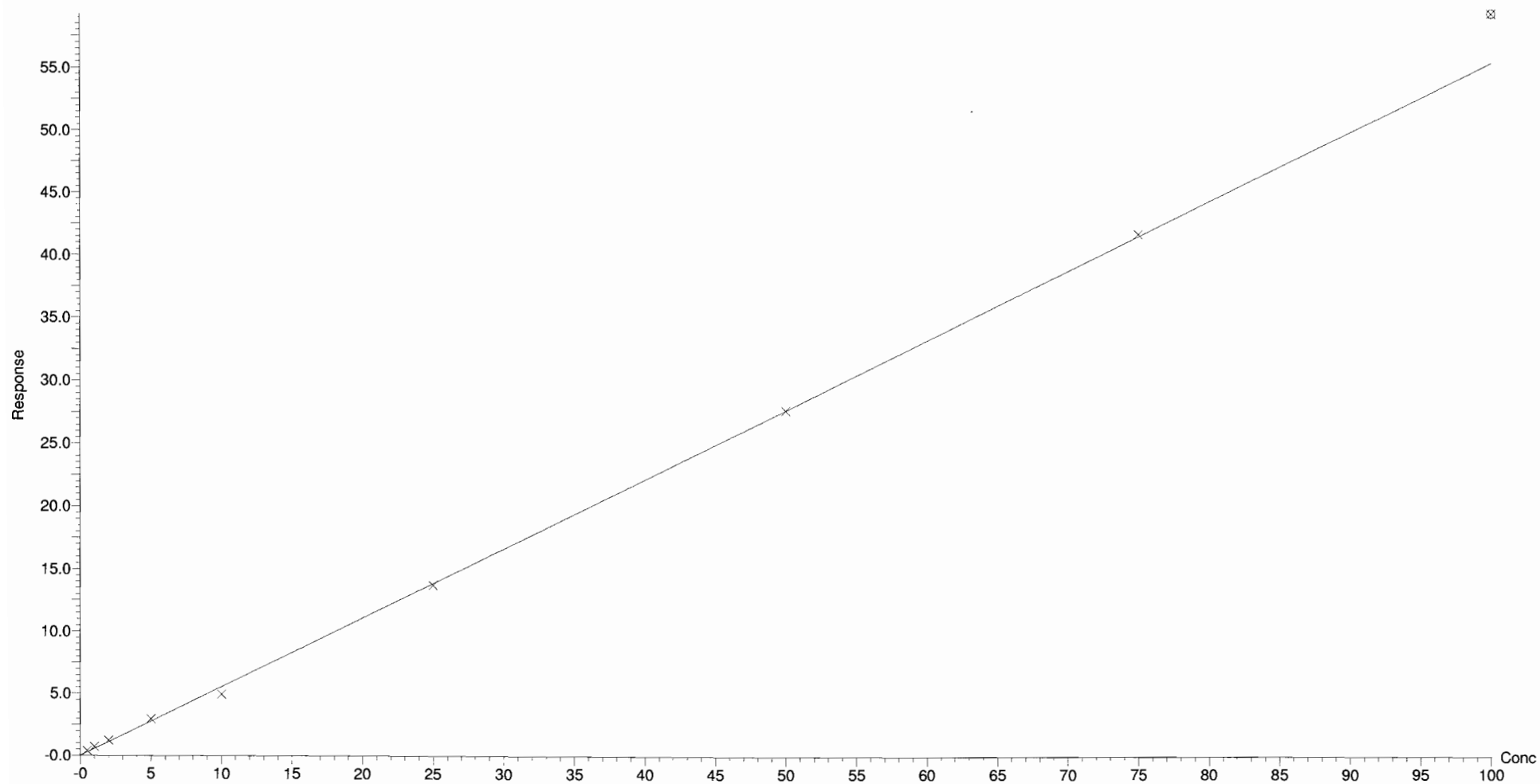
Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.997717$

Calibration curve: $0.553475 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

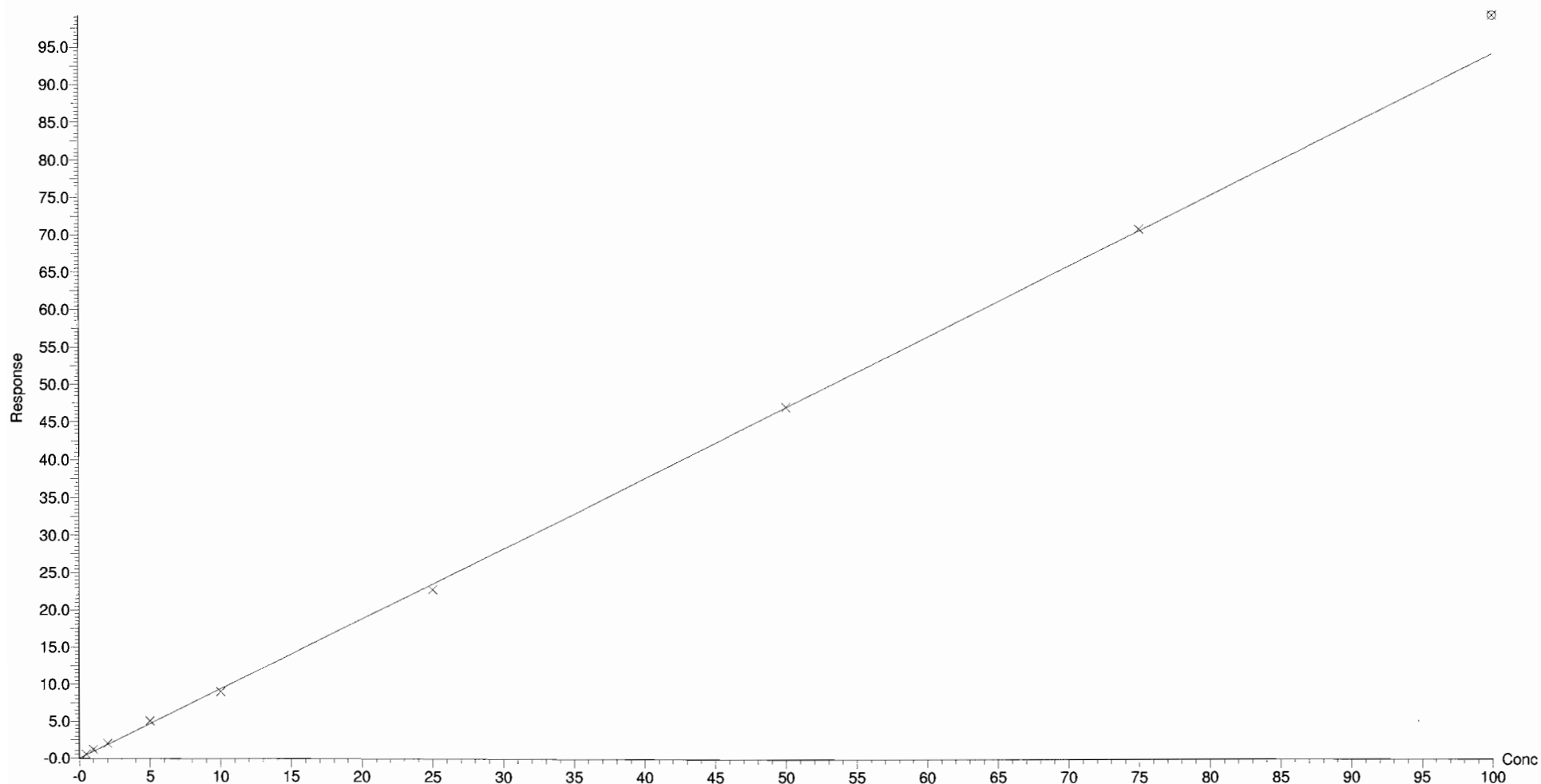
Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.998875$

Calibration curve: $0.940423 \times x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

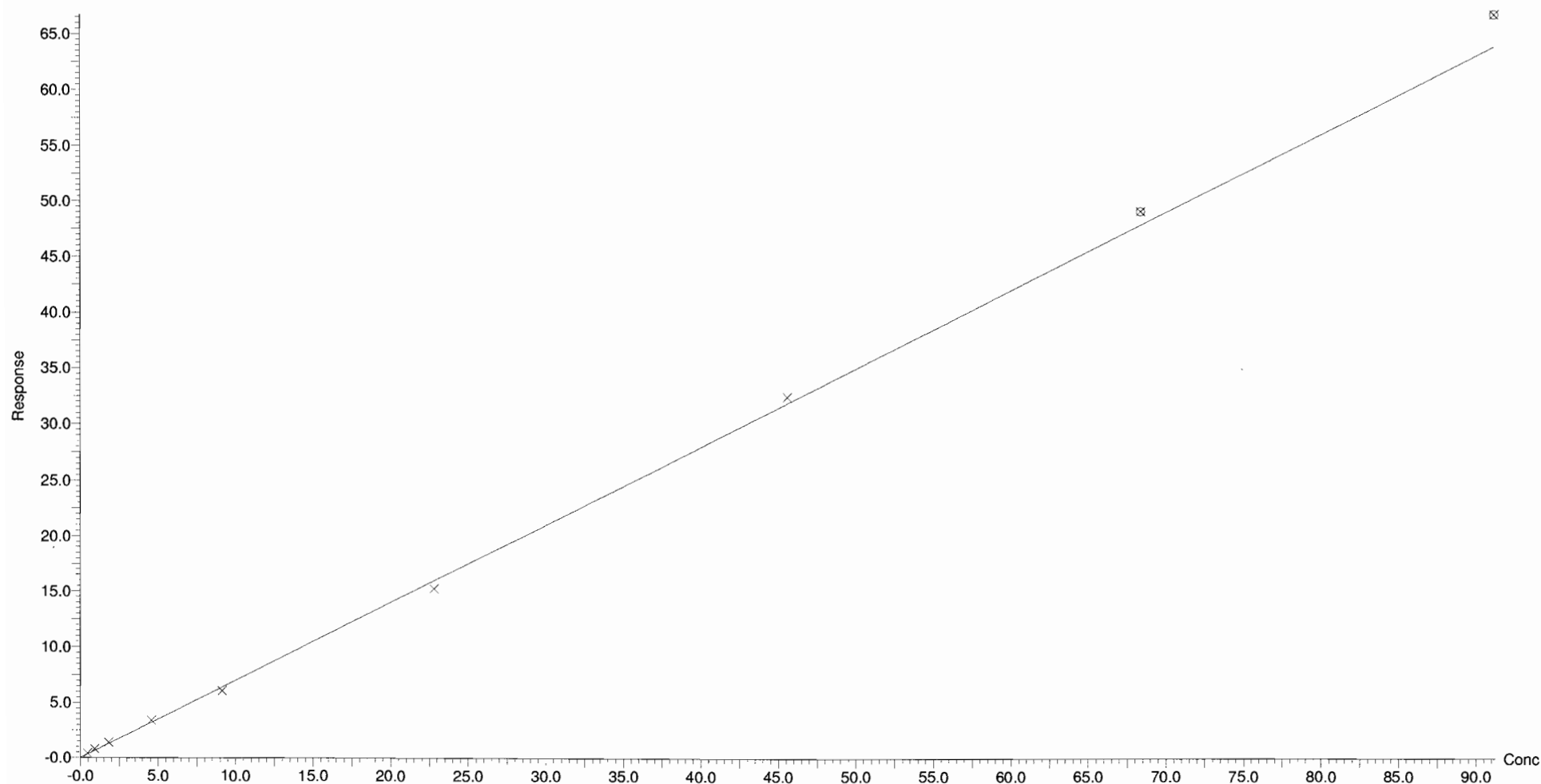
Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.997652$

Calibration curve: $0.699727 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

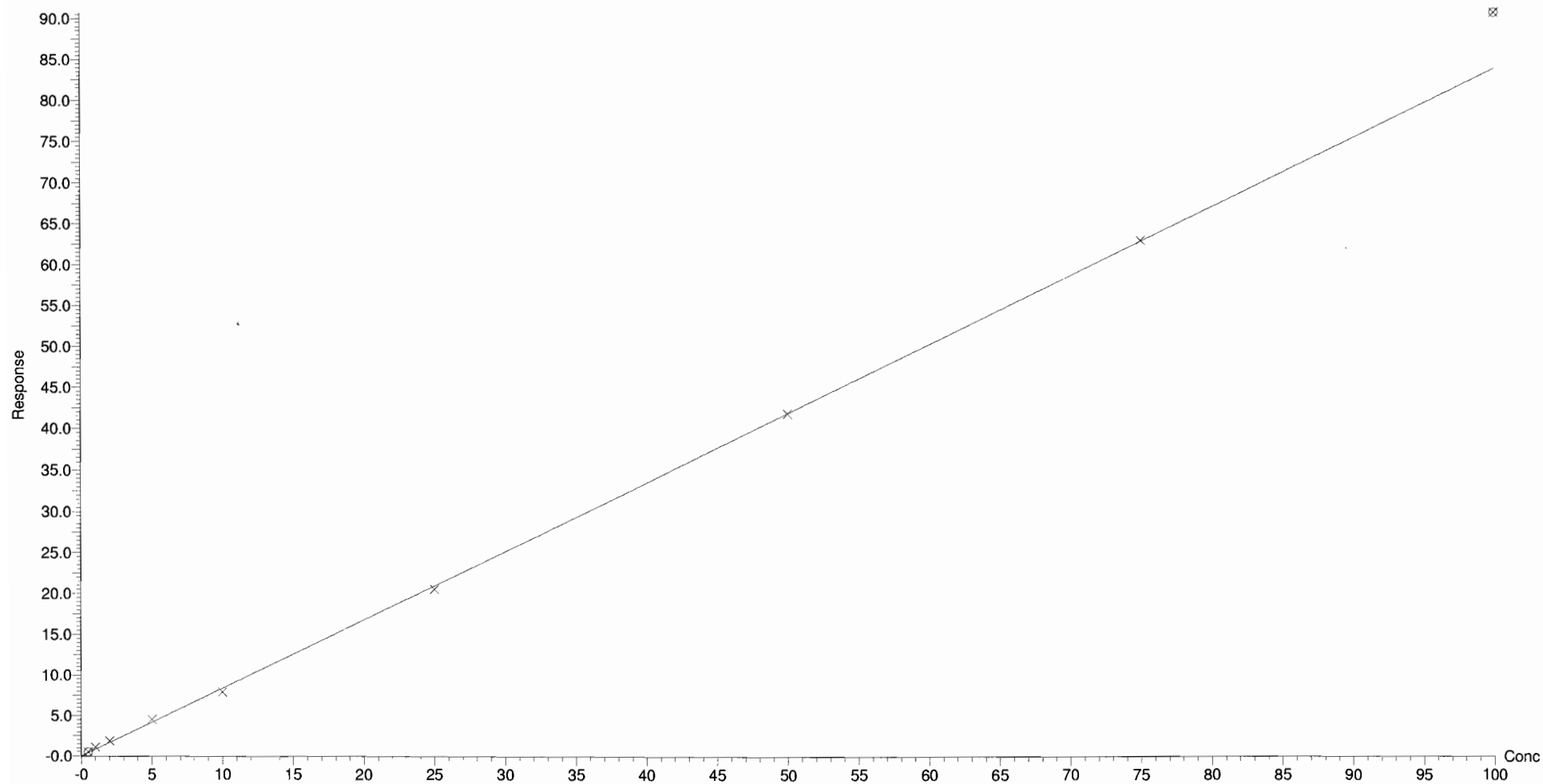
Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998447$

Calibration curve: $0.83774 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

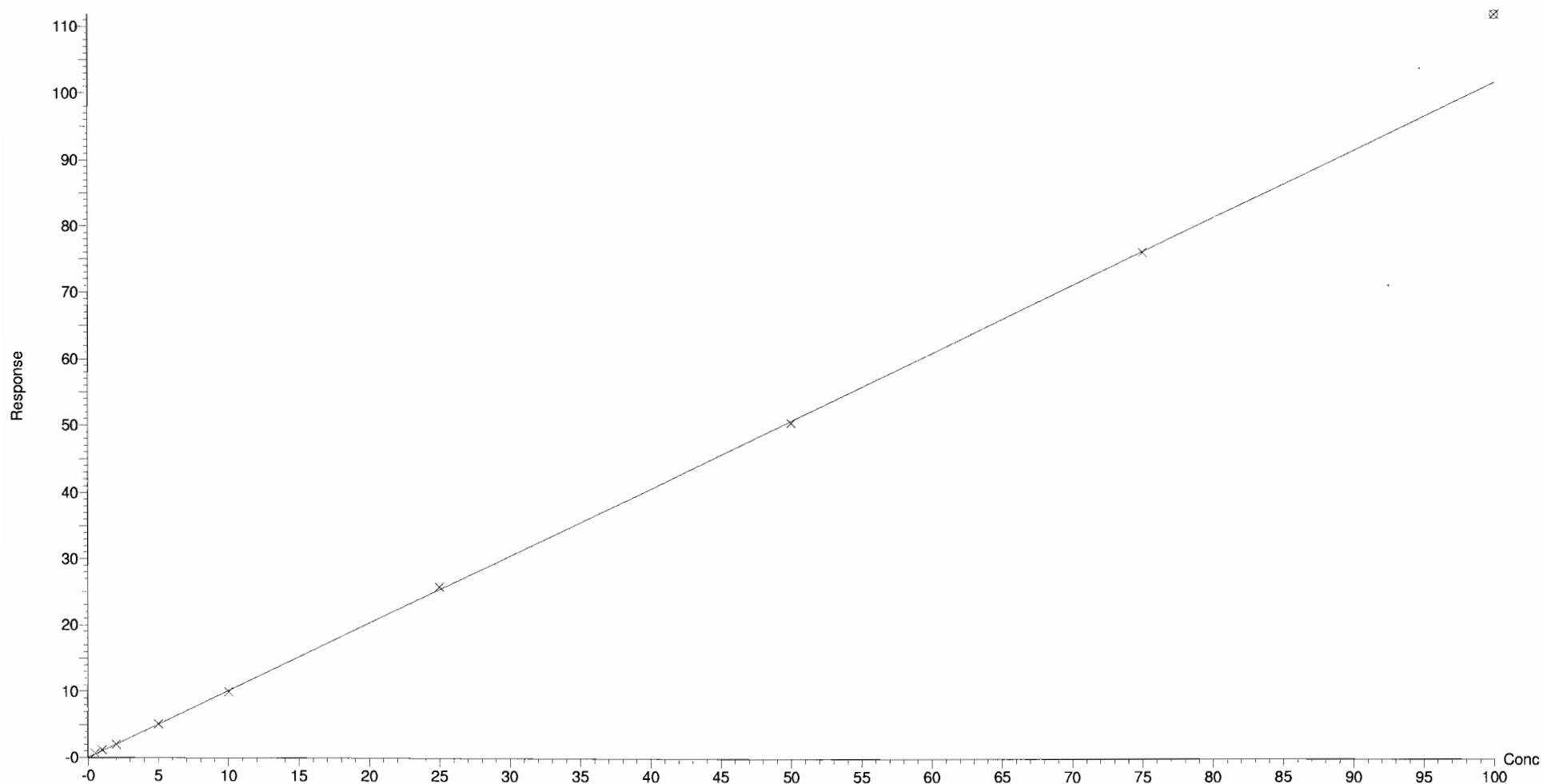
Compound name: PFNA

Coefficient of Determination: $R^2 = 0.999615$

Calibration curve: $1.01645 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

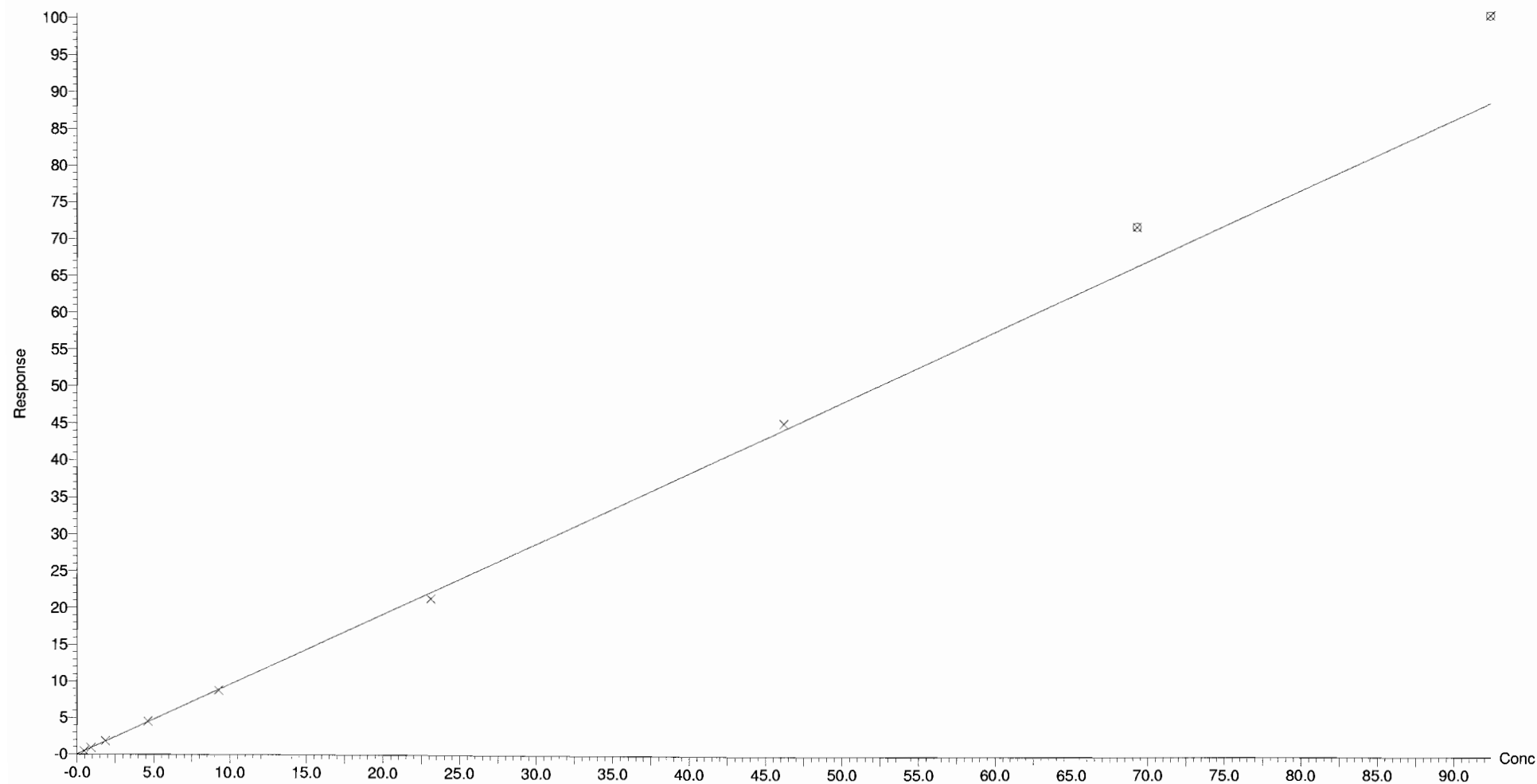
Compound name: PFOS

Coefficient of Determination: $R^2 = 0.999243$

Calibration curve: $0.960258 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

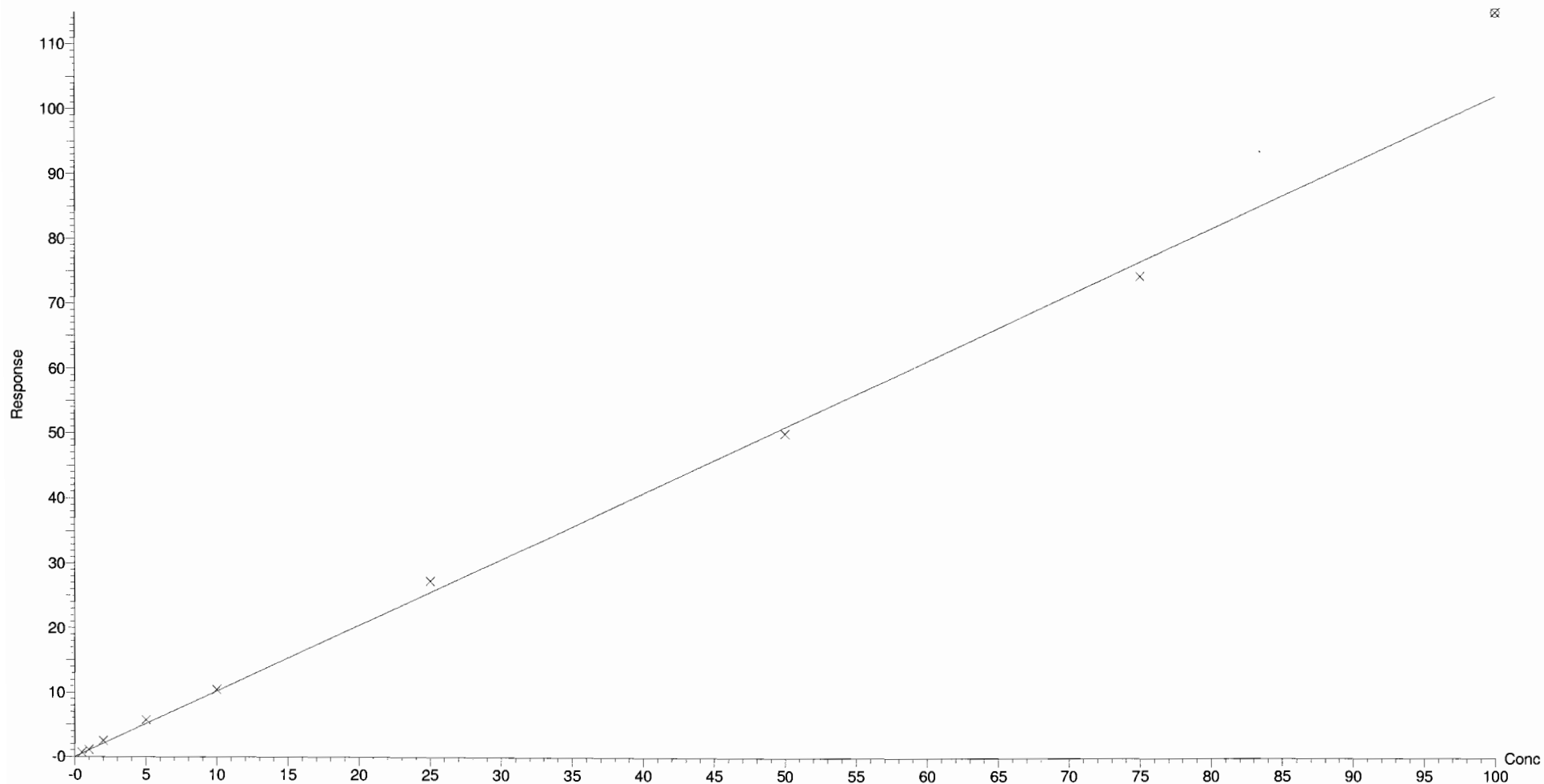
Compound name: PFDA

Coefficient of Determination: $R^2 = 0.997317$

Calibration curve: $1.0203 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

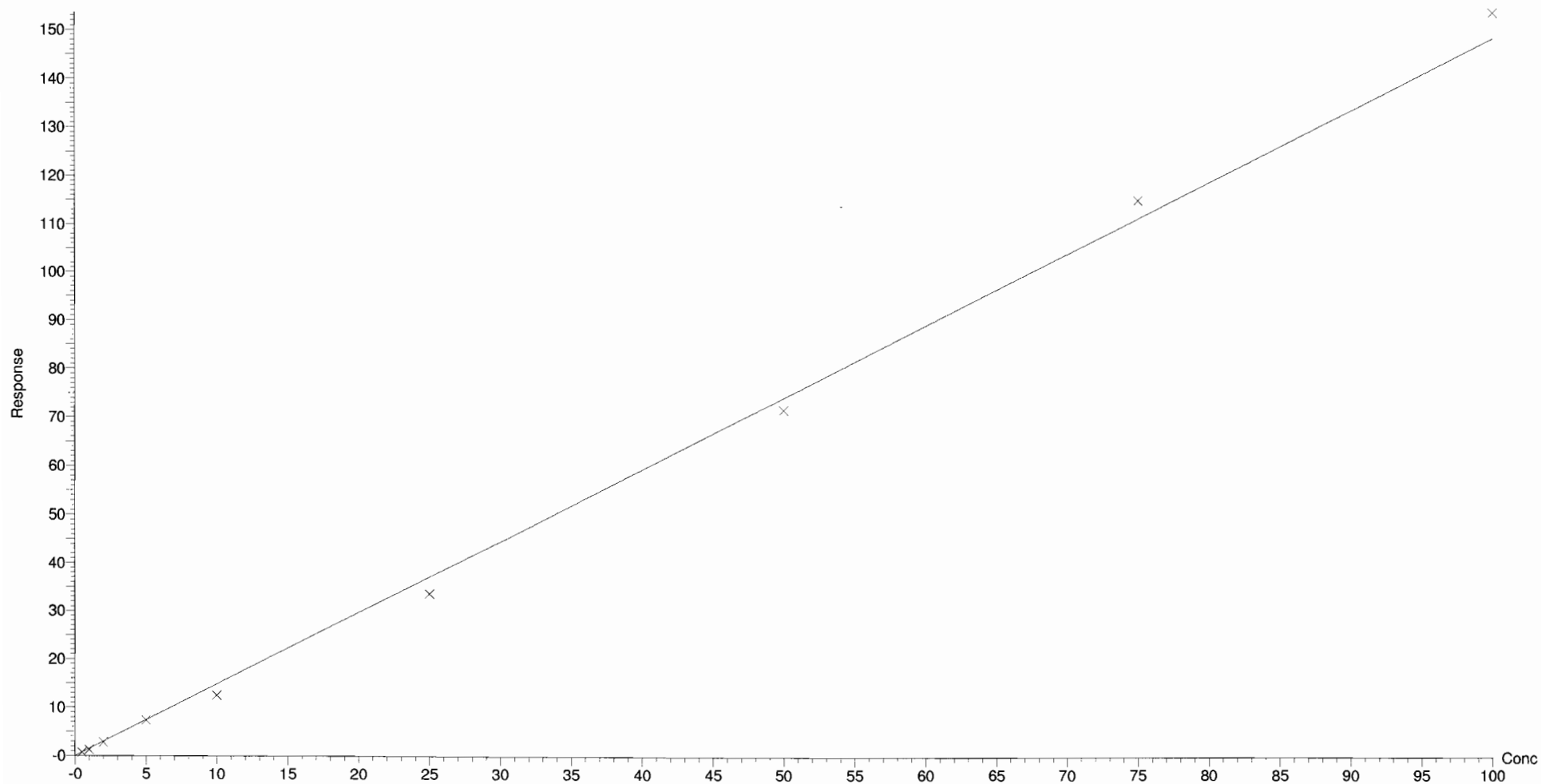
Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996817$

Calibration curve: $1.4828 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

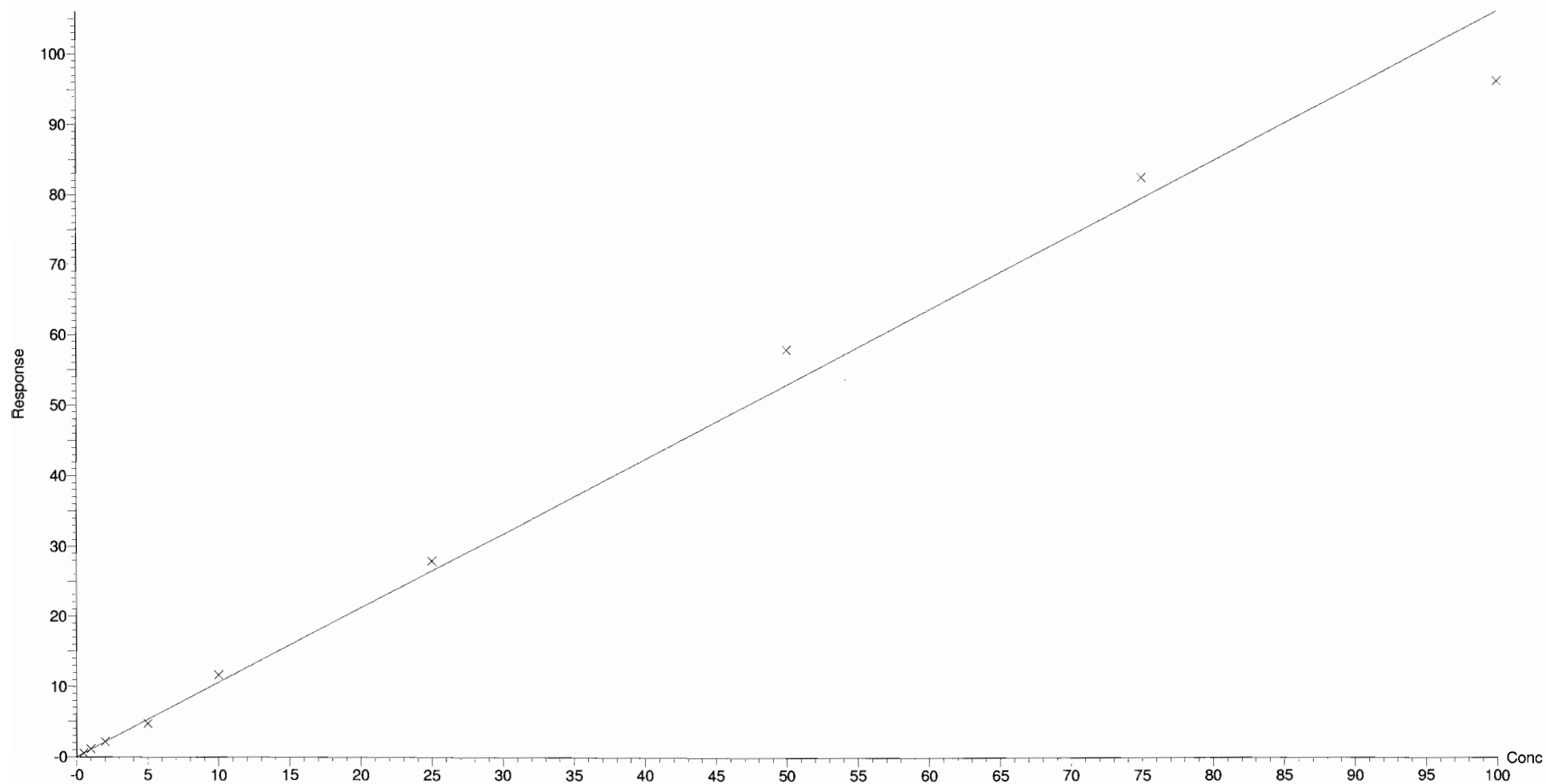
Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.993395$

Calibration curve: $1.05983 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

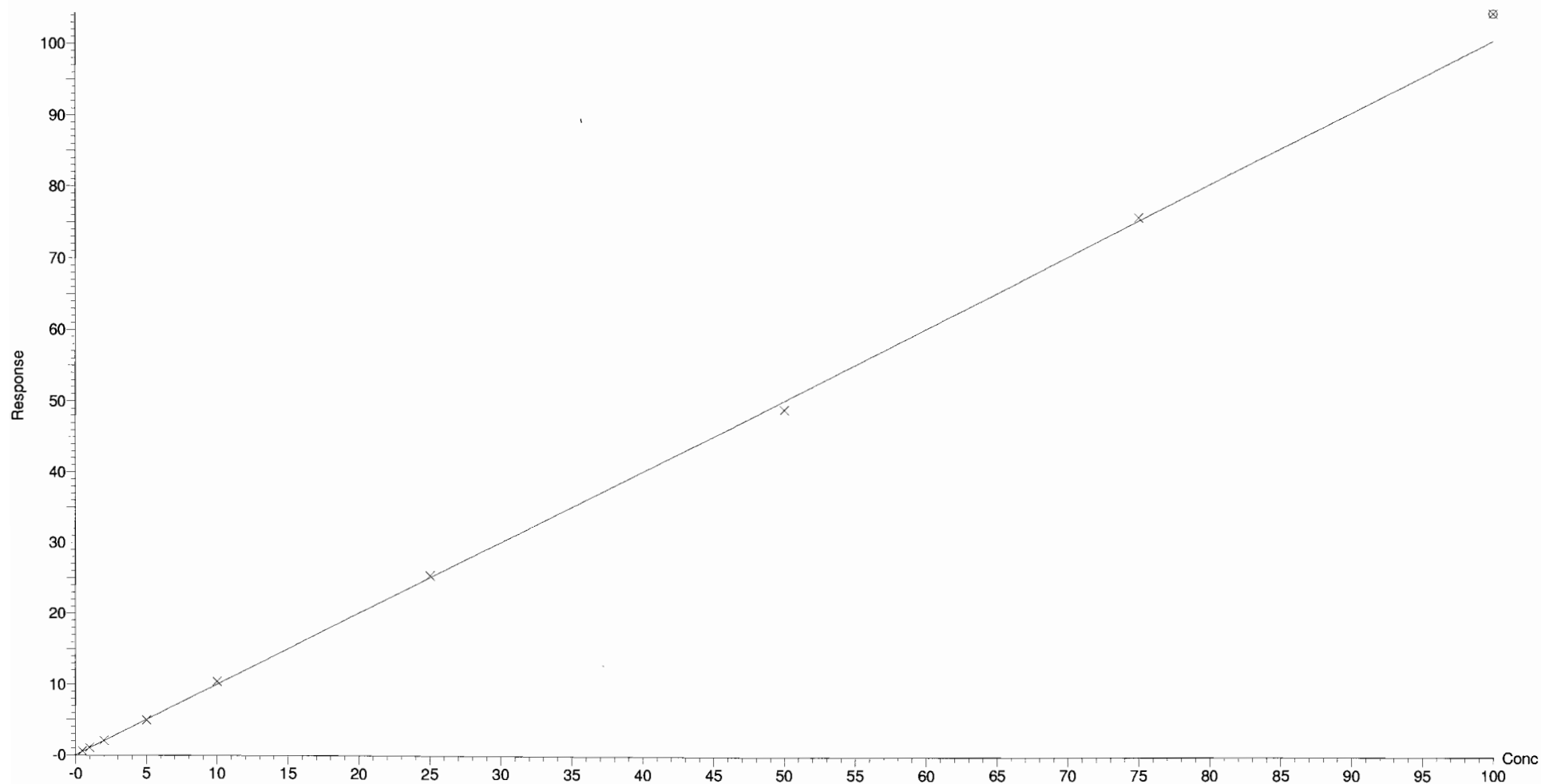
Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.999540$

Calibration curve: $1.00493 \cdot x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

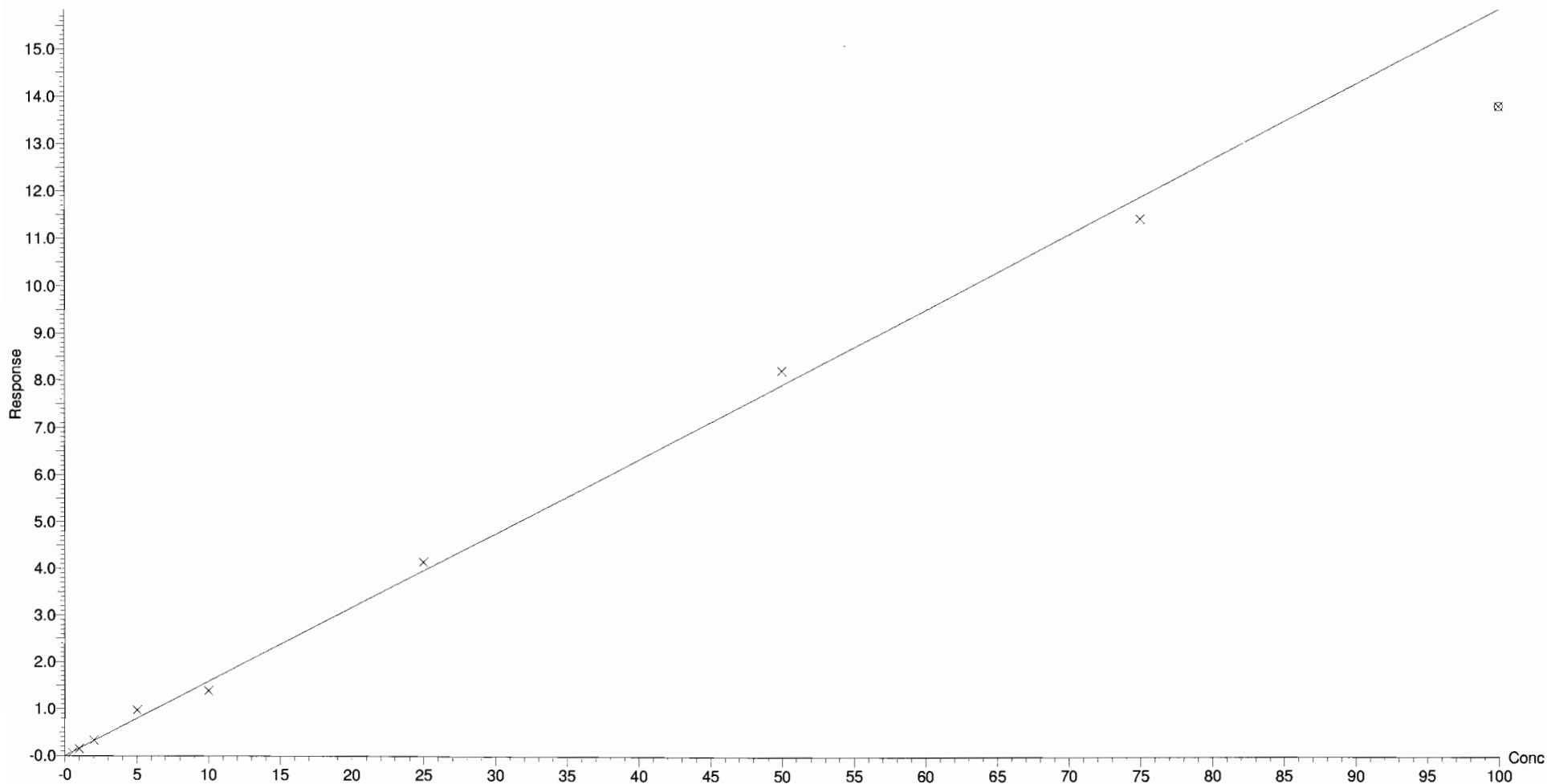
Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995506$

Calibration curve: $0.158397 \cdot x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

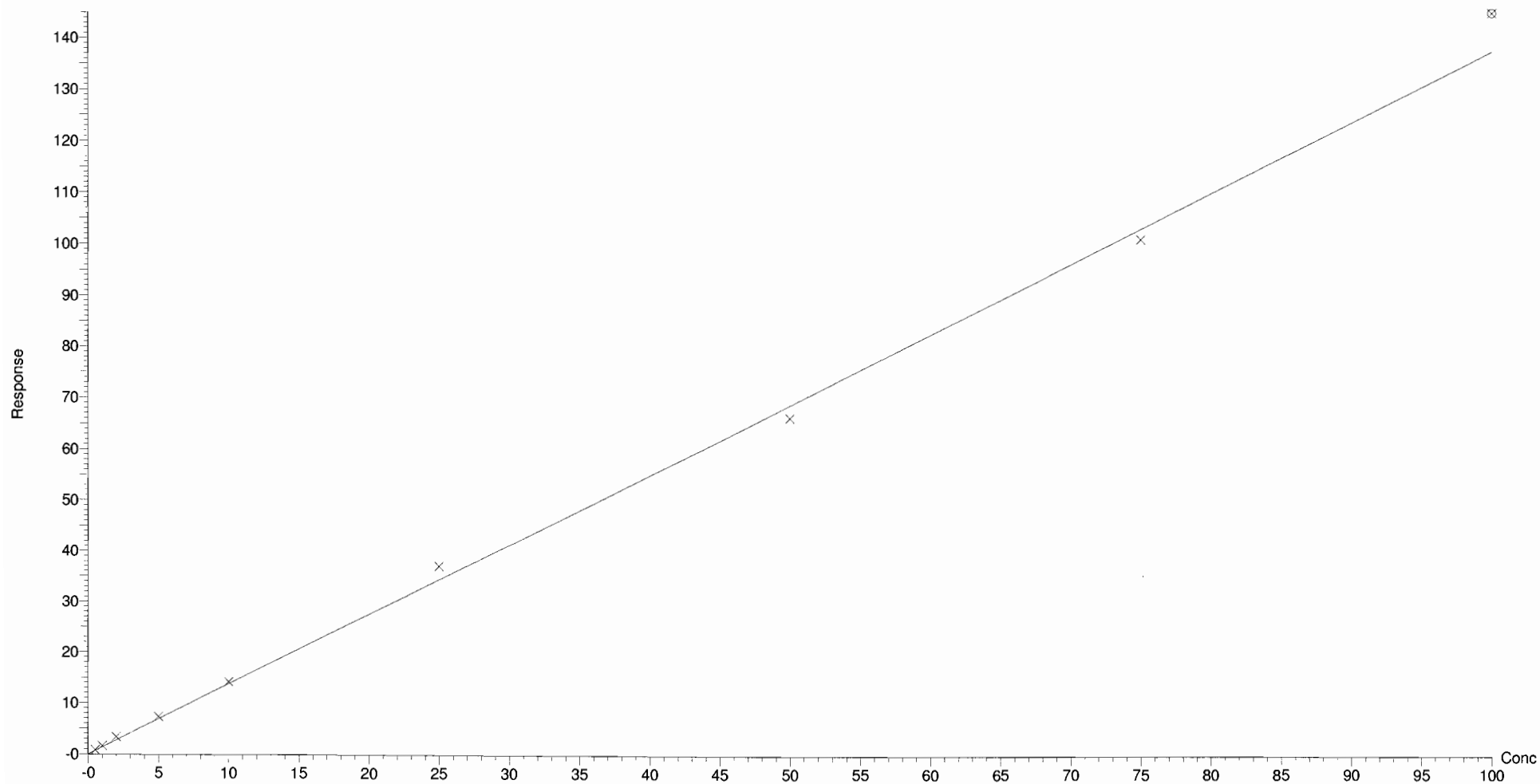
Compound name: PFTTrDA

Coefficient of Determination: $R^2 = 0.997291$

Calibration curve: $1.3743 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:26:36 Pacific Standard Time

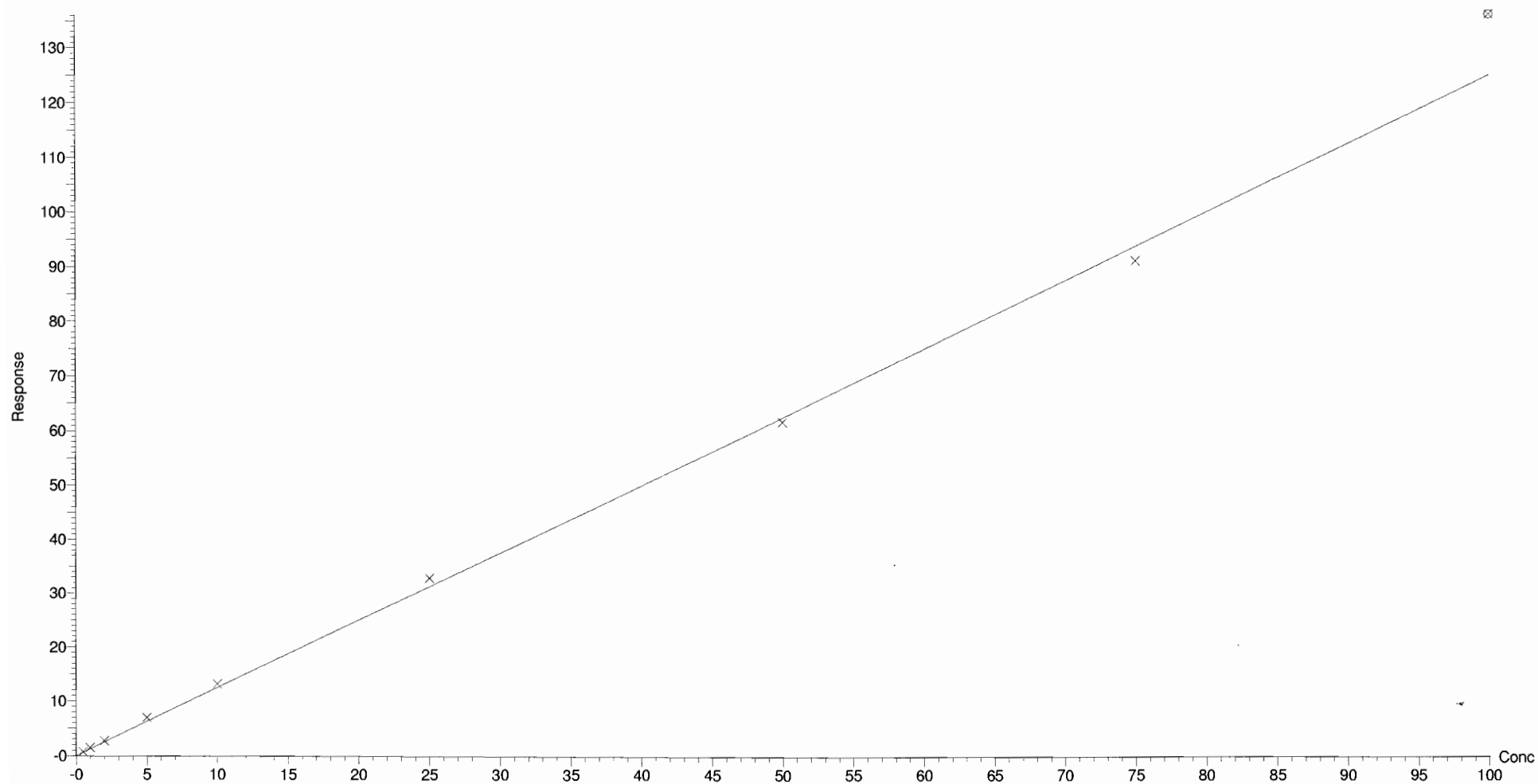
Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998250$

Calibration curve: $1.24932 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

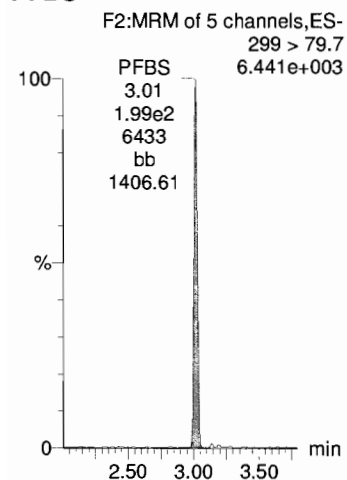
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Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

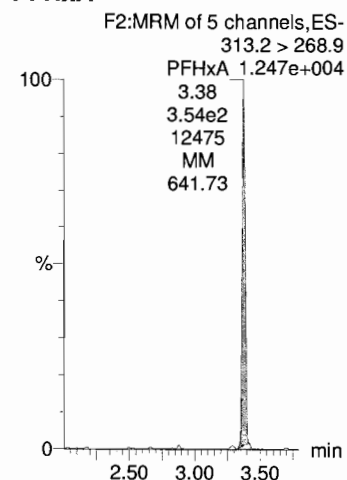
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 17:19:14

Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

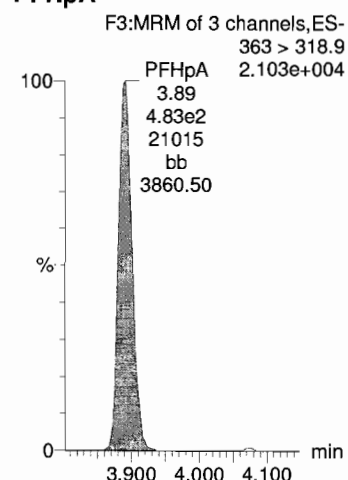
PFBS



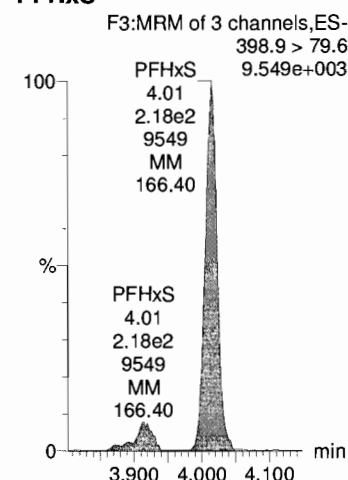
PFHxA



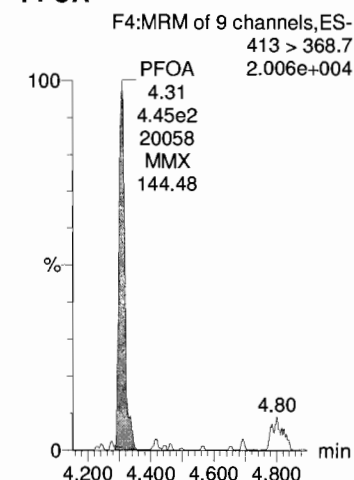
PFHpA



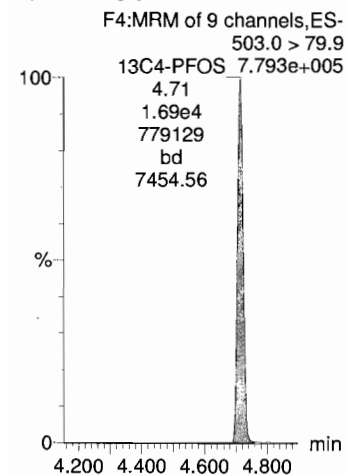
PFHxS



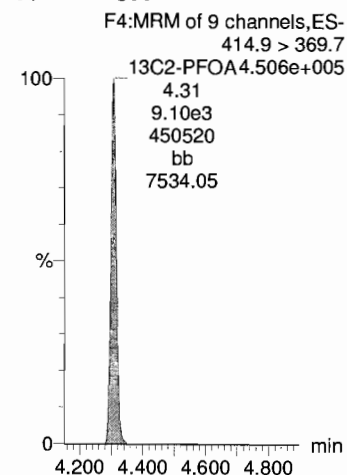
PFOA



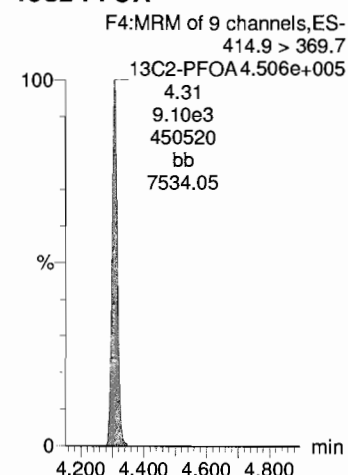
13C4-PFOS



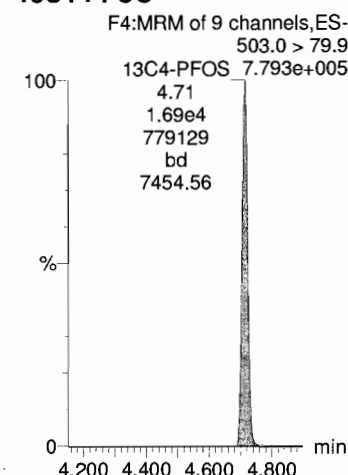
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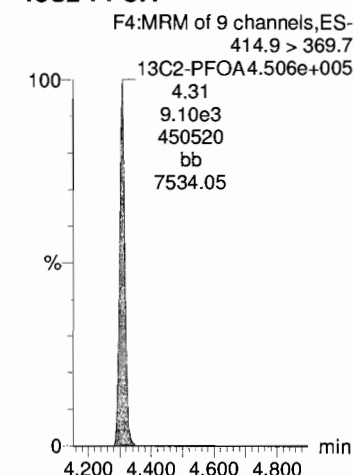
13C2-PFOA



13C4-PFOS



13C2-PFOA



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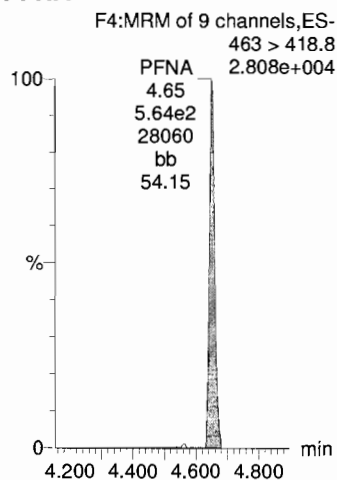
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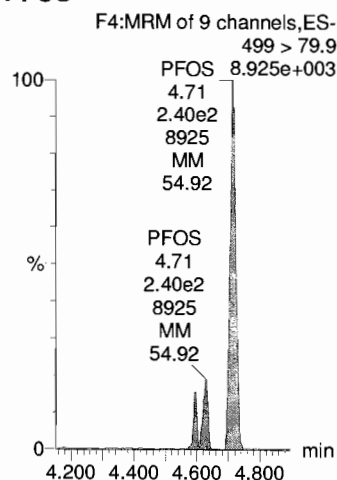
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Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

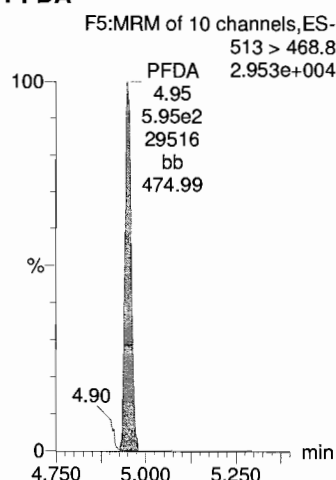
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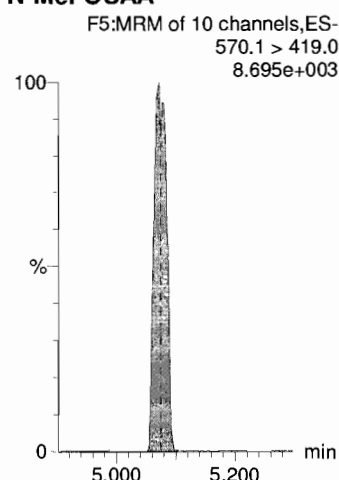
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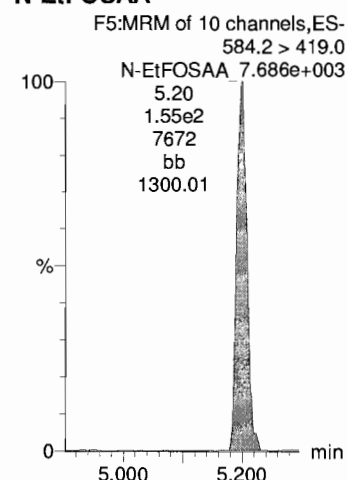
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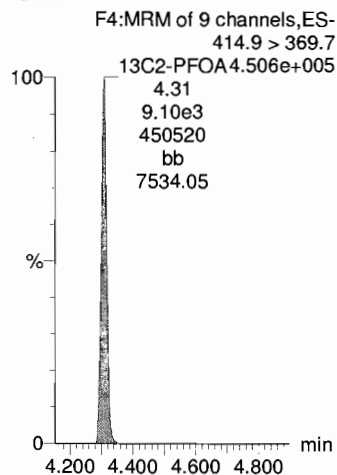
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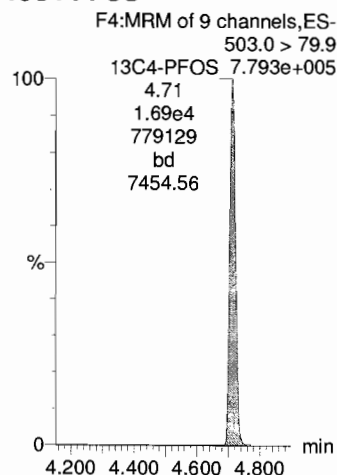
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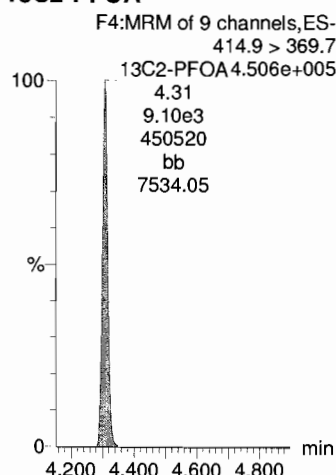
13C2-PFOA



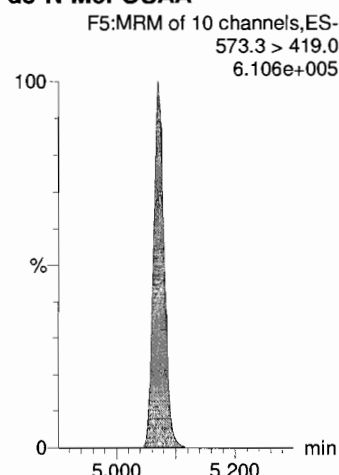
13C4-PFOS



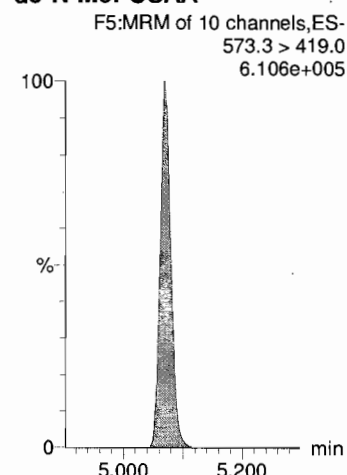
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



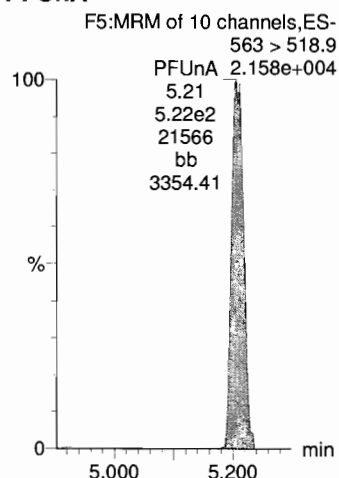
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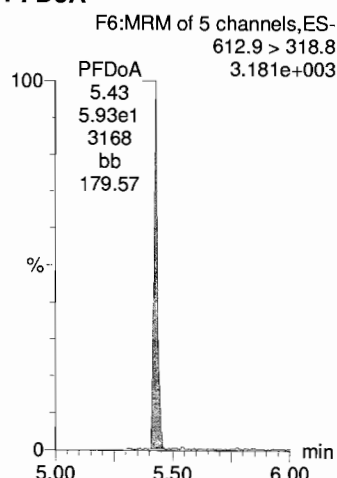
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Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

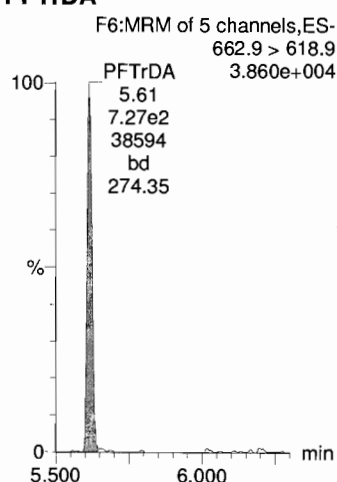
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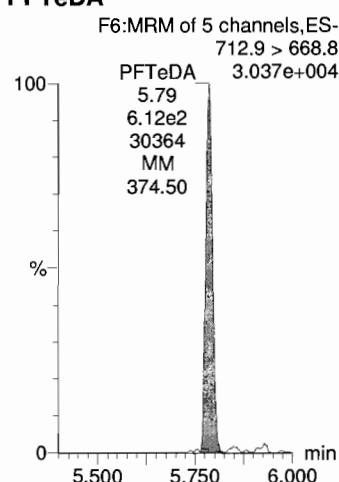
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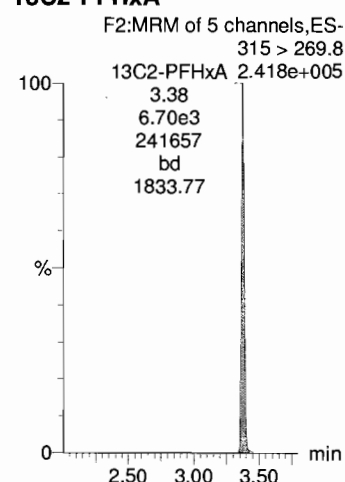
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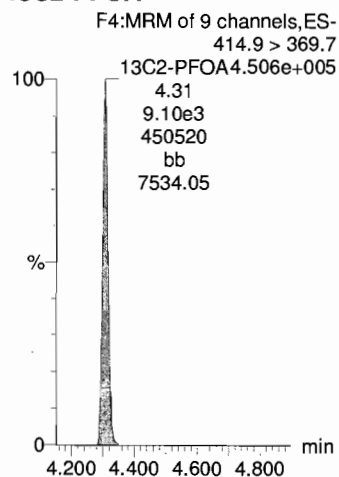
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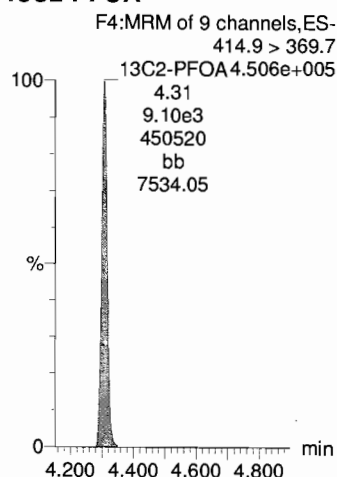
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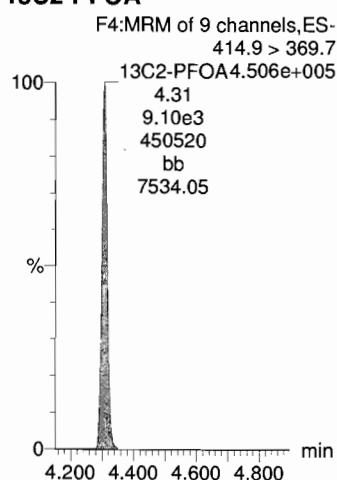
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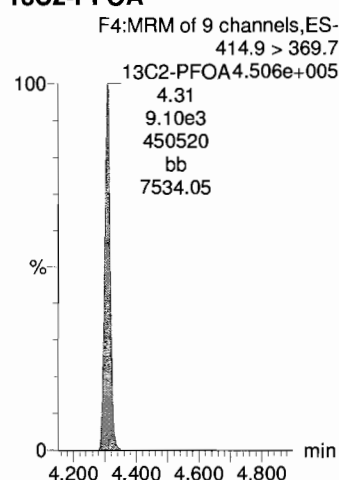
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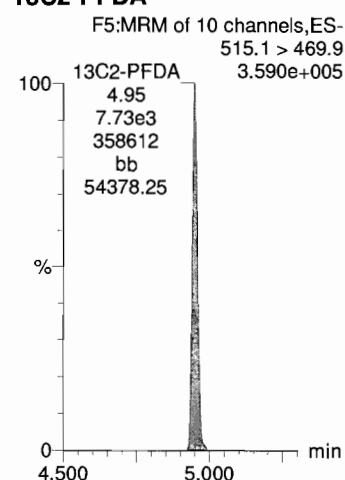
13C2-PFOA



13C2-PFOA



13C2-PFDA



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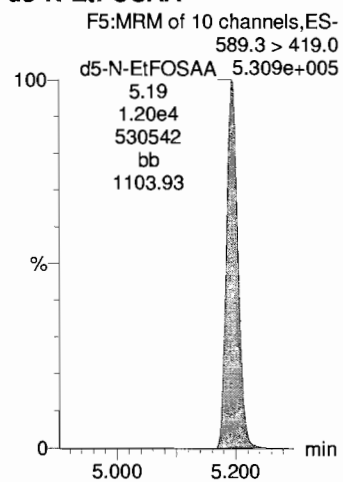
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_2, Date: 23-Feb-2018, Time: 13:29:59, ID: ST180223G2-1 PFC CS-3 537 18B2301, Description: PFC CS-3 537 18B2301

d5-N-EtFOSAA



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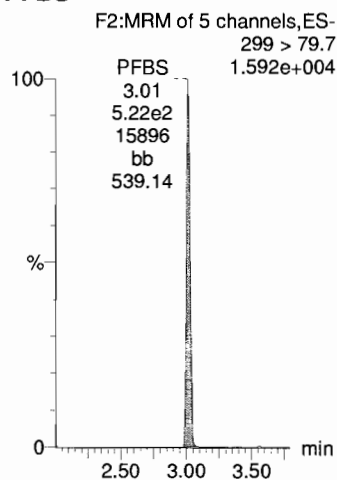
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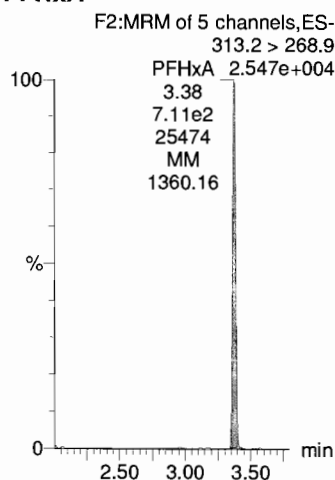
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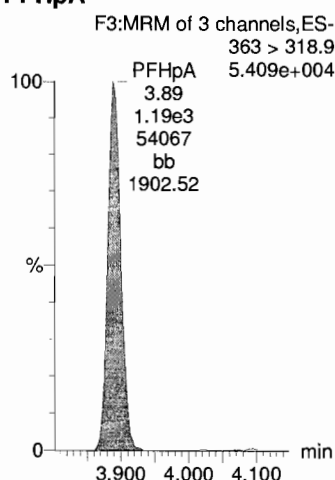
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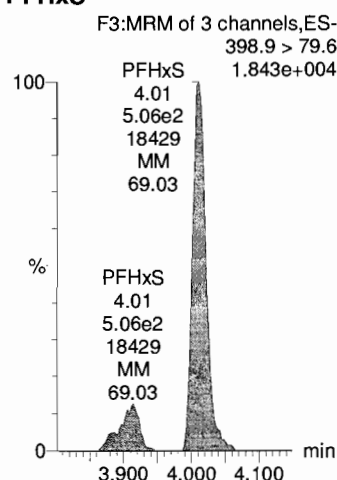
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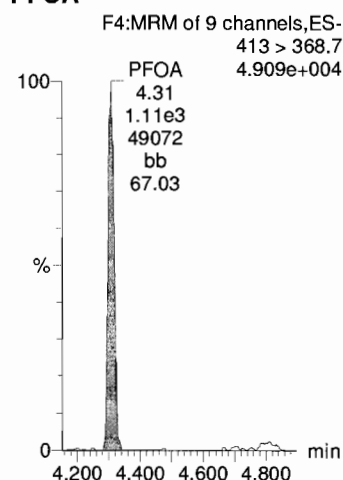
PFHpA



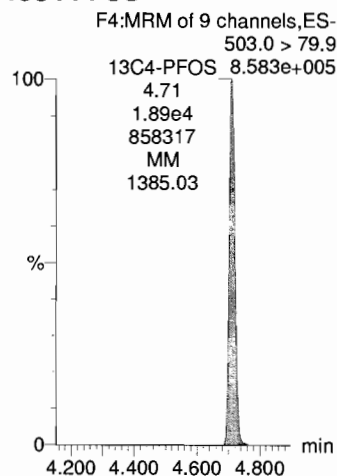
PFHxS



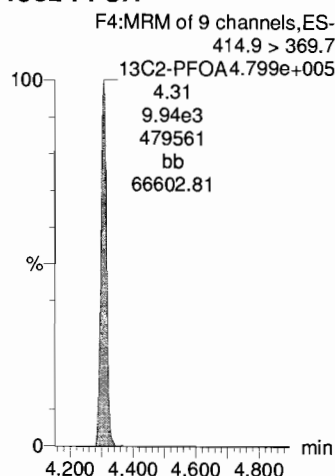
PFOA



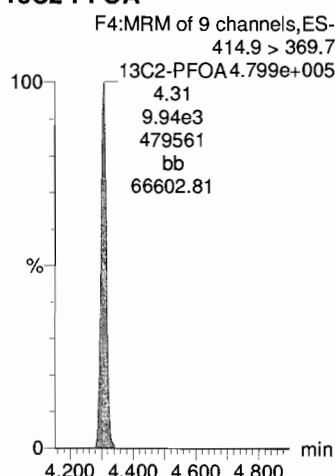
13C4-PFOS



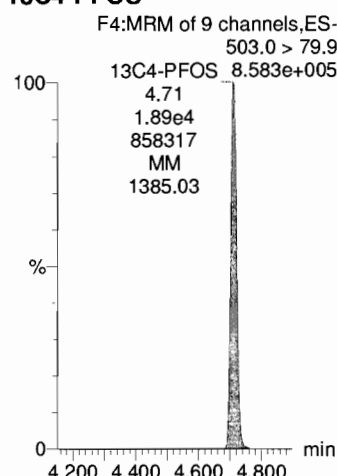
13C2-PFOA



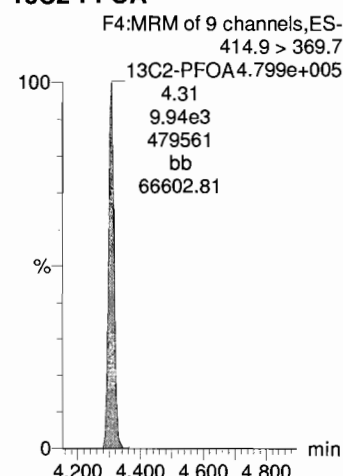
13C2-PFOA



13C4-PFOS



13C2-PFOA



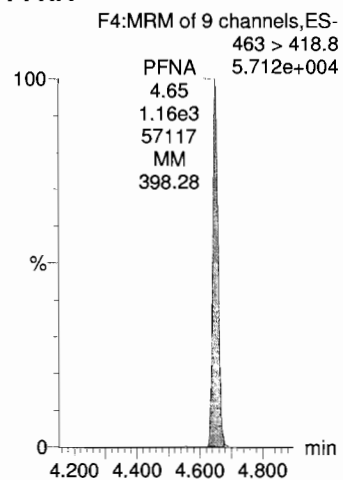
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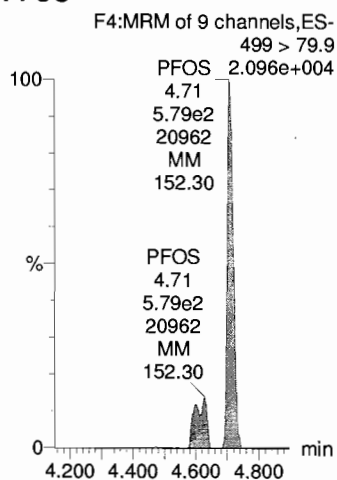
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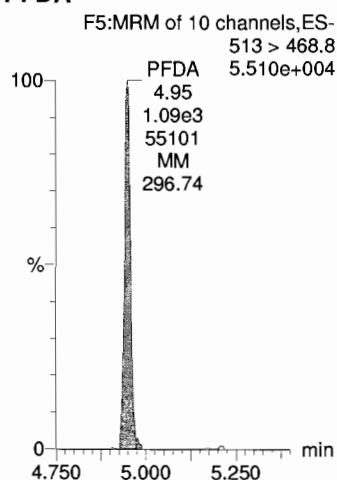
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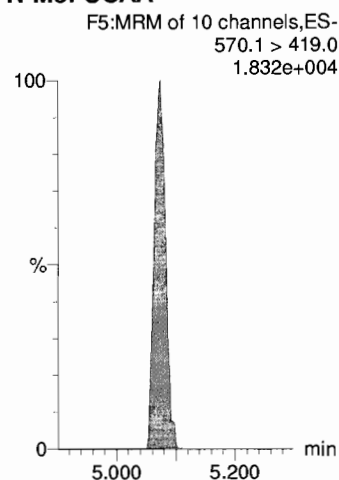
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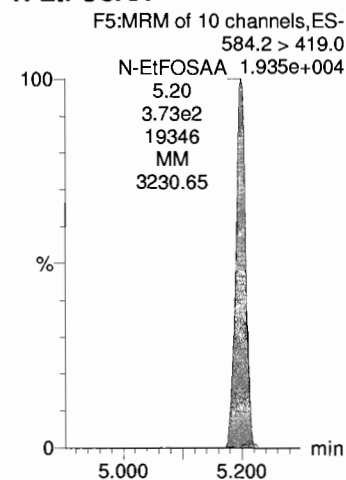
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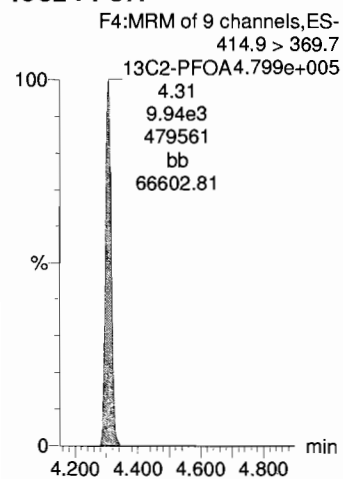
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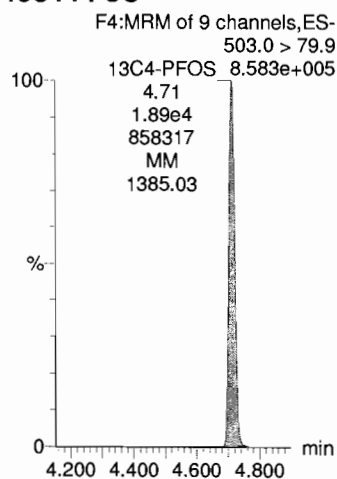
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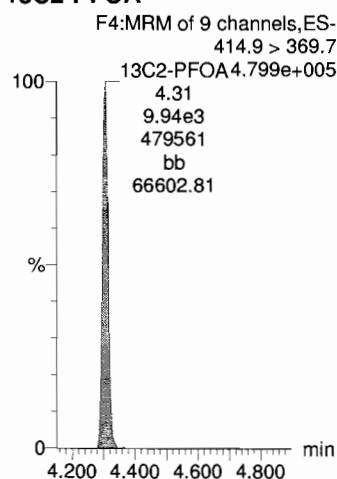
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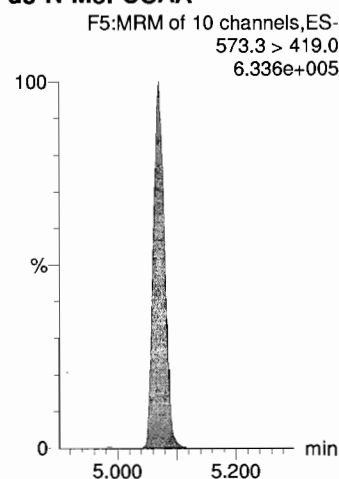
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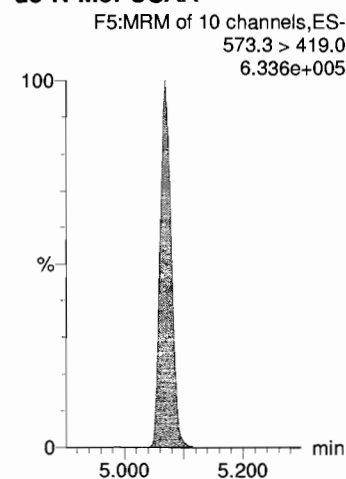
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d3-N-MeFOSAA



d3-N-MeFOSAA



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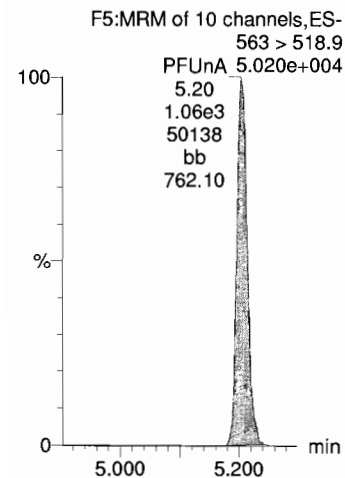
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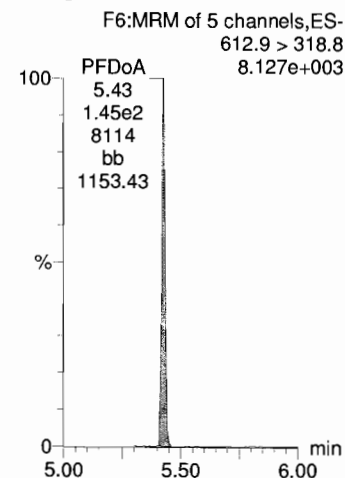
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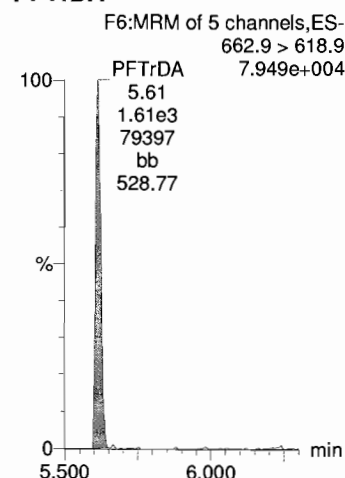
PFUnA



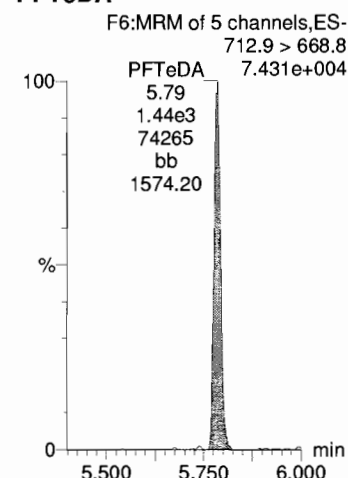
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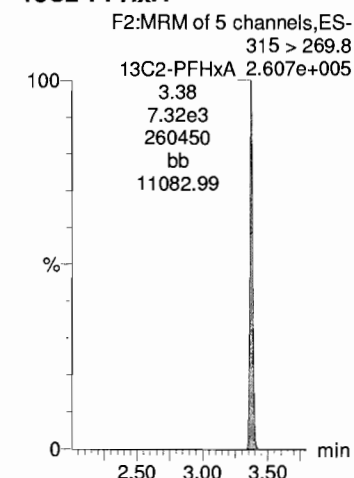
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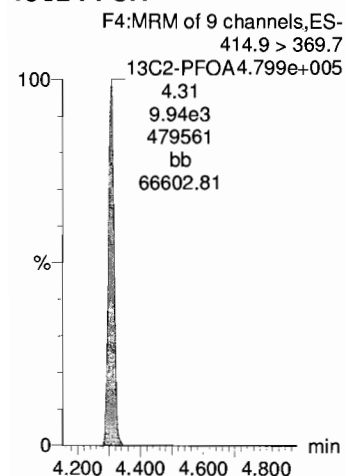
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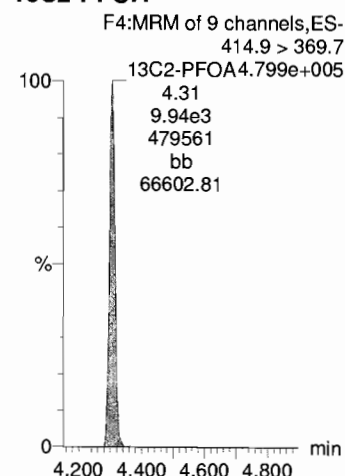
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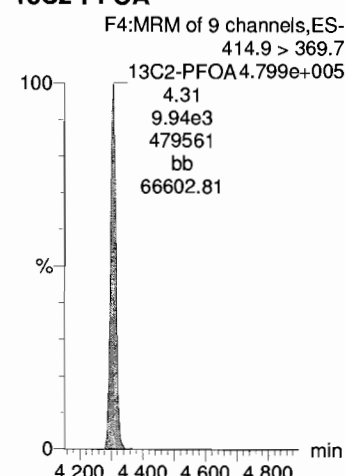
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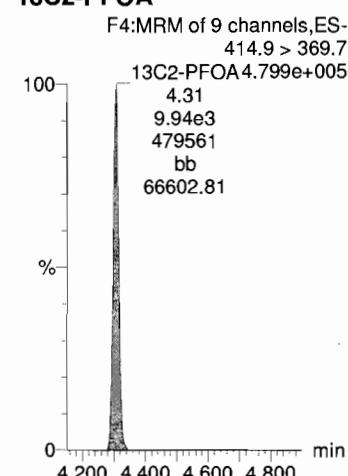
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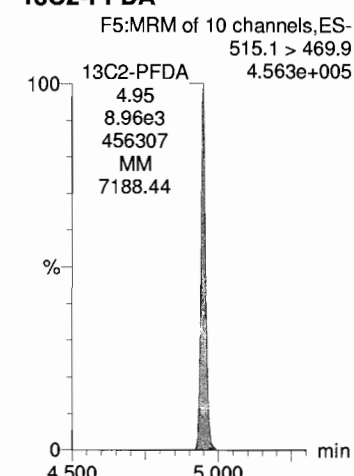
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13C2-PFOA



13C2-PFDA



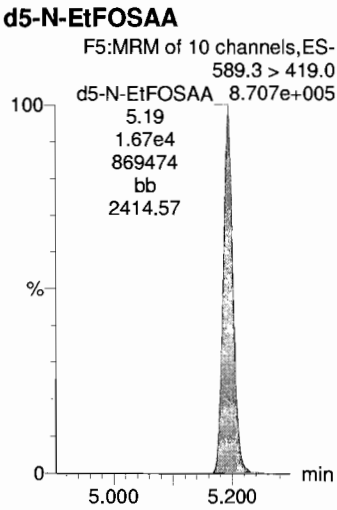
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Name: 180223G2_3, Date: 23-Feb-2018, Time: 13:42:20, ID: ST180223G2-2 PFC CS-2 537 18B2302, Description: PFC CS-2 537 18B2302



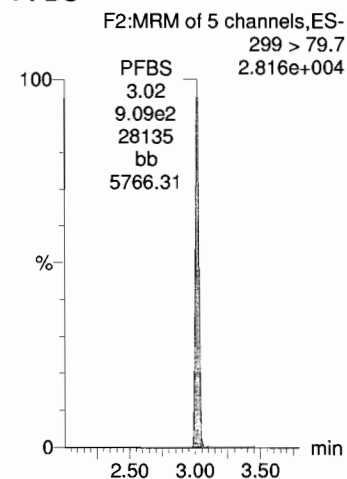
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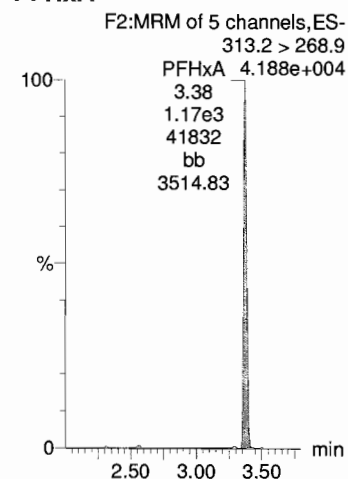
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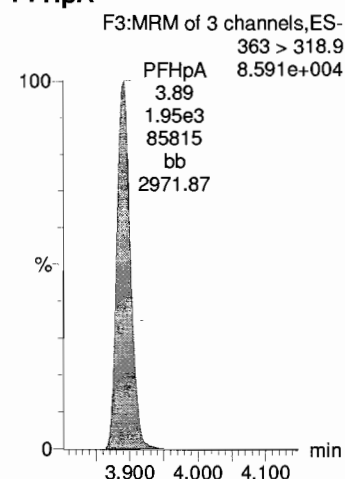
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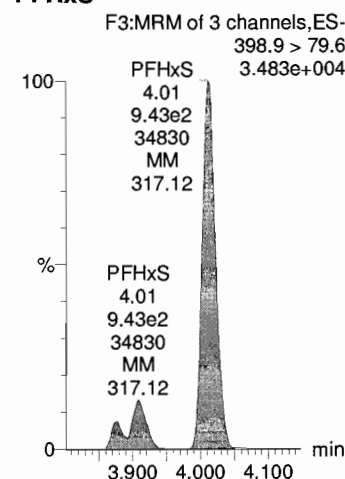
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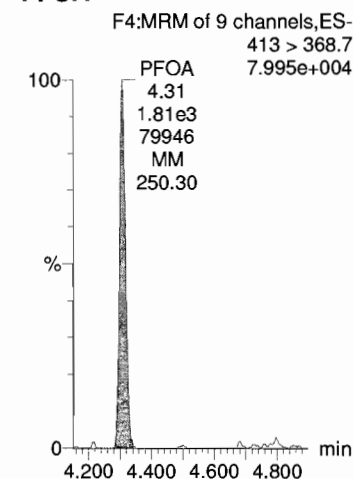
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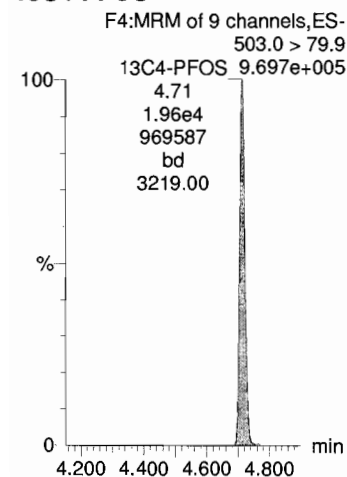
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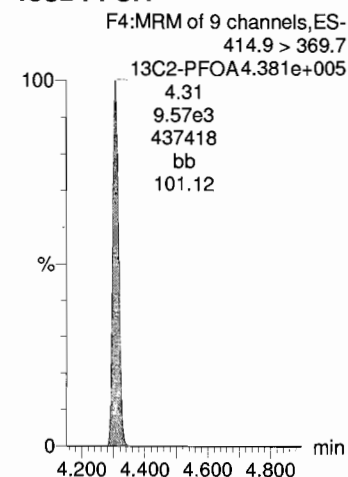
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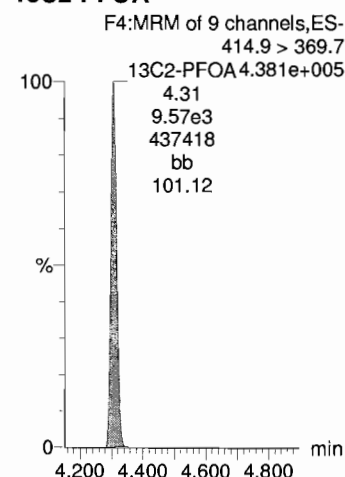
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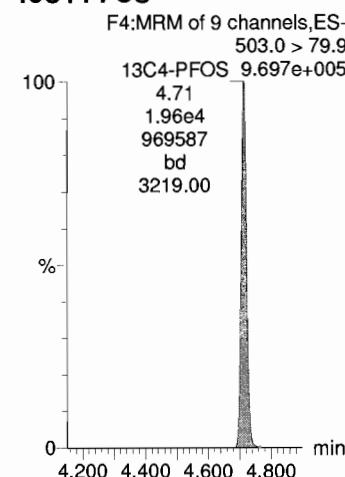
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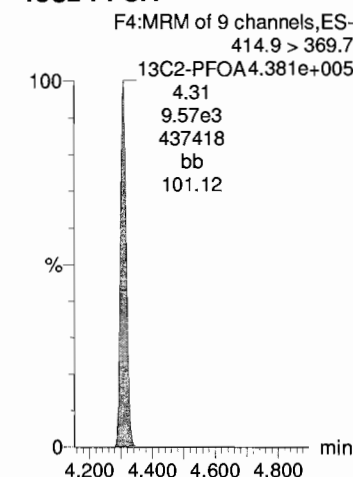
13C2-PFOA



13C4-PFOS



13C2-PFOA



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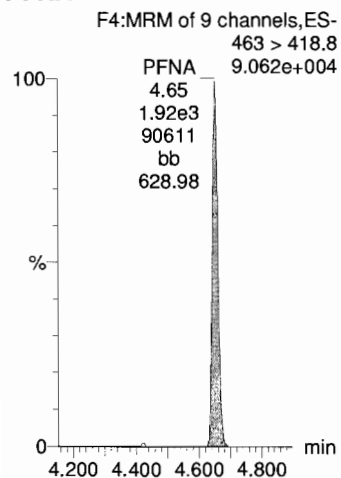
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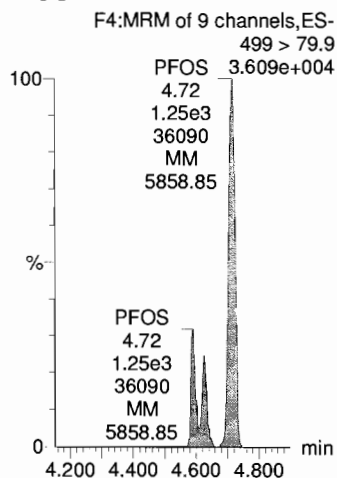
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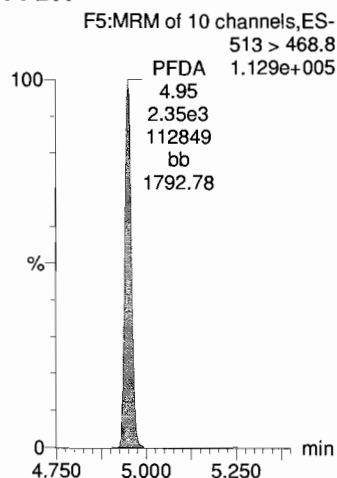
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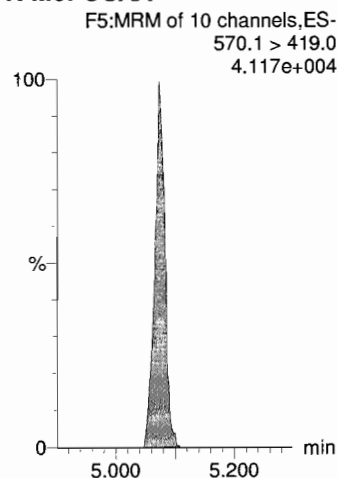
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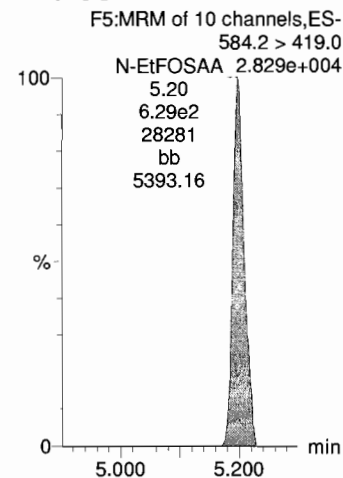
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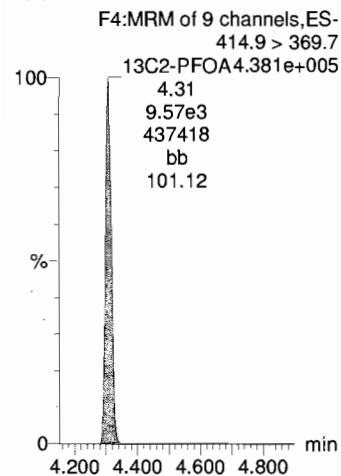
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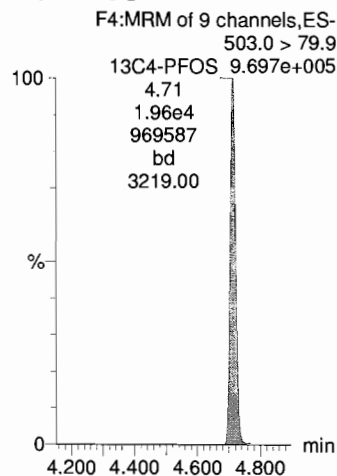
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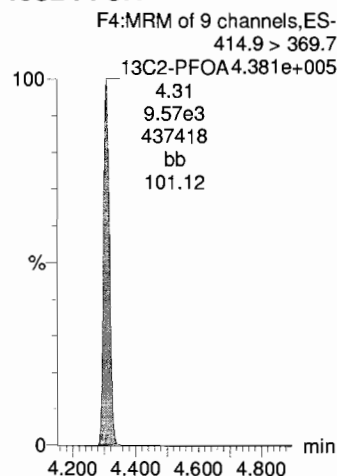
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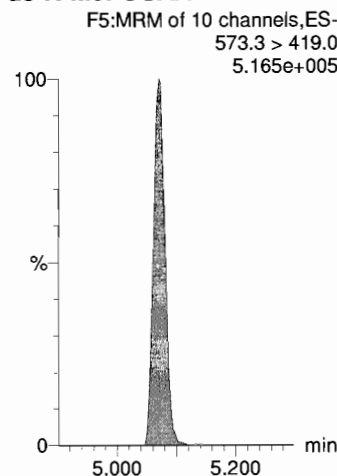
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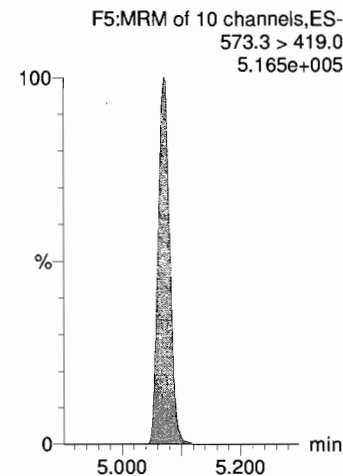
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



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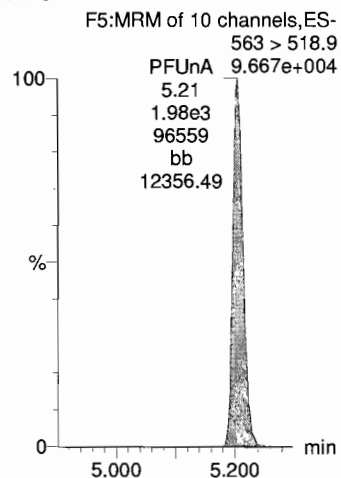
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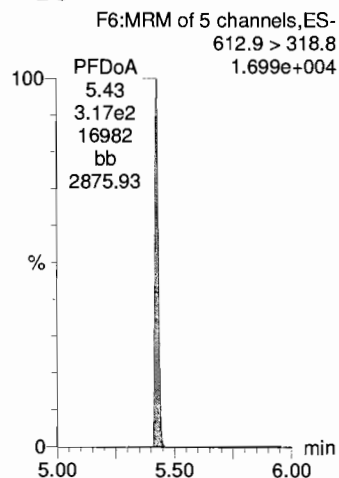
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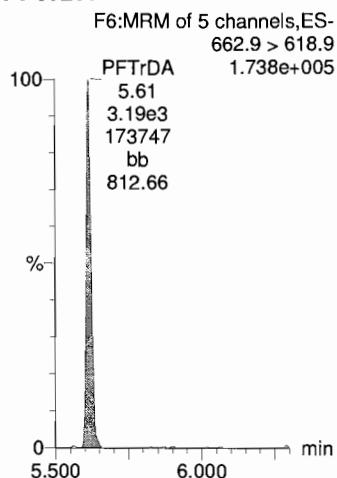
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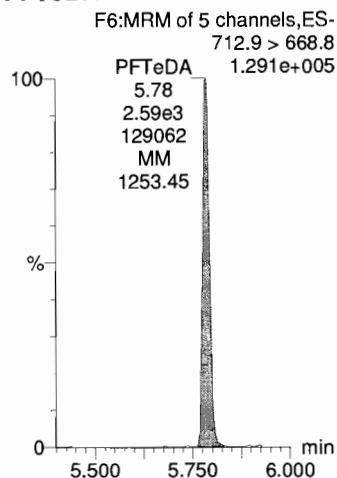
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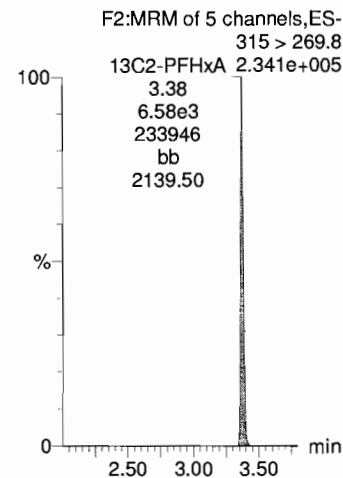
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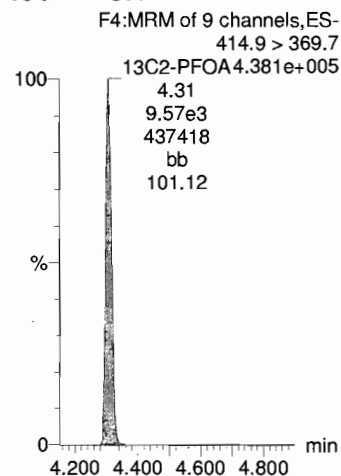
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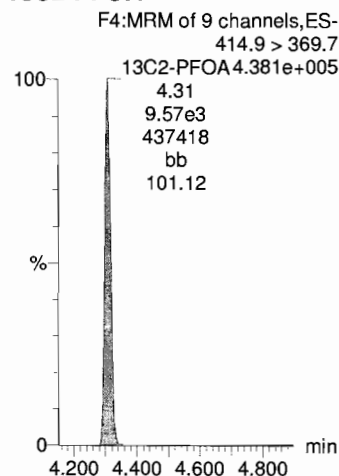
13C2-PFHxA



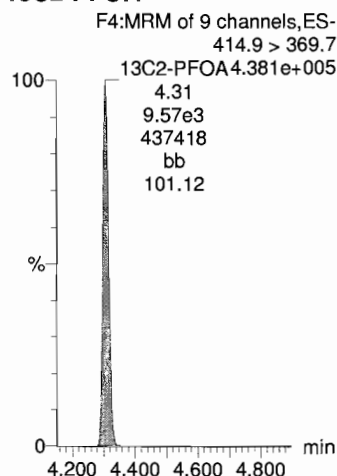
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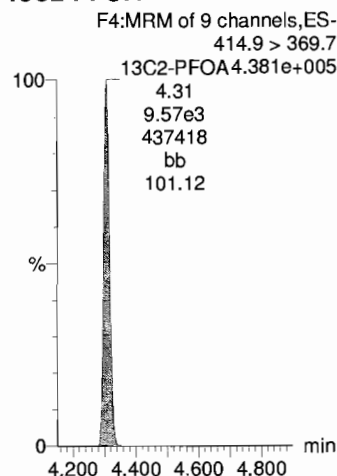
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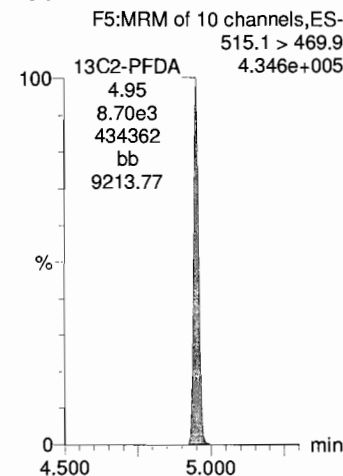
13C2-PFOA



13C2-PFOA



13C2-PFDA



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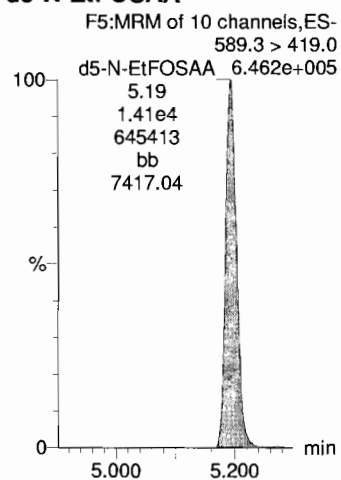
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_4, Date: 23-Feb-2018, Time: 13:54:45, ID: ST180223G2-3 PFC CS-1 537 18B2310, Description: PFC CS-1 537 18B2310

d5-N-EtFOSAA



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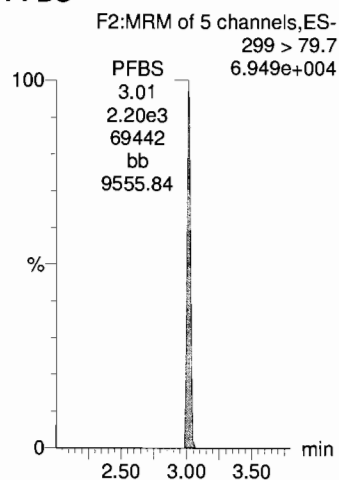
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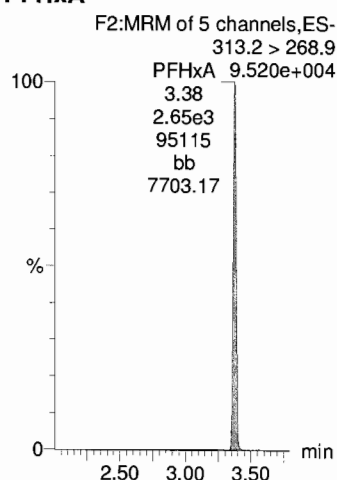
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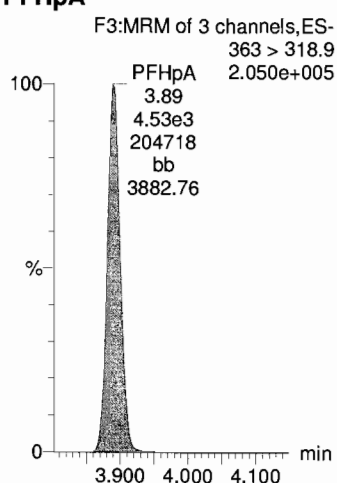
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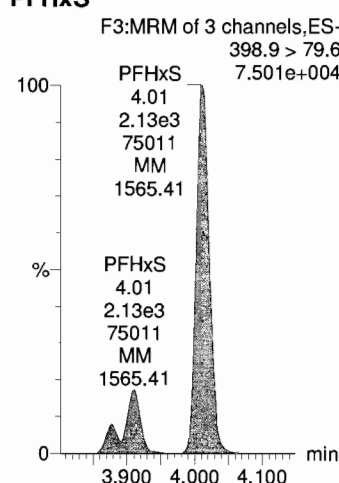
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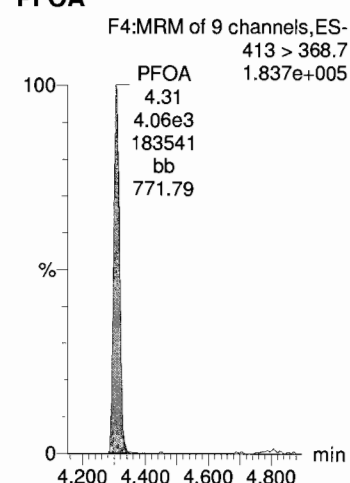
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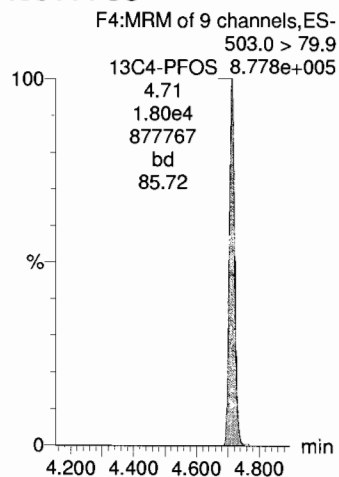
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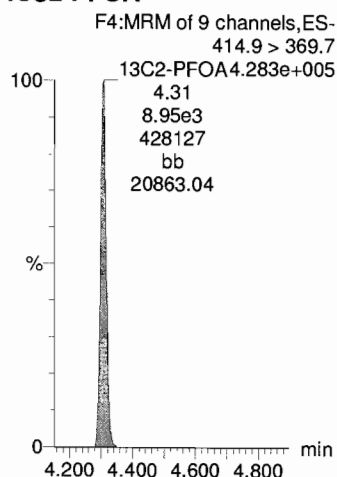
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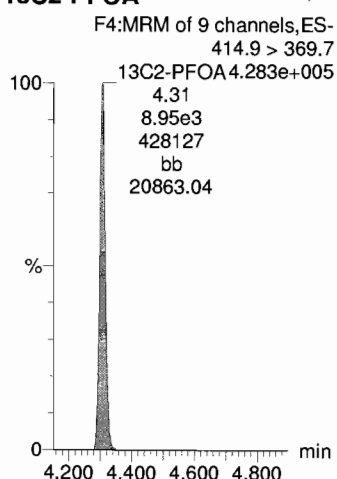
13C4-PFOS



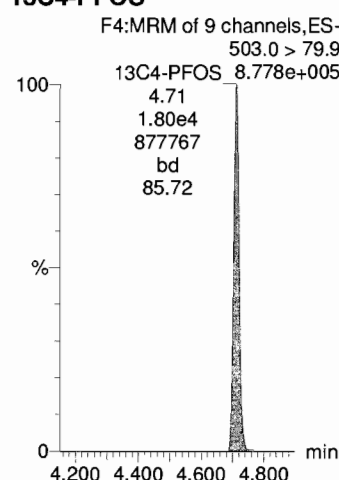
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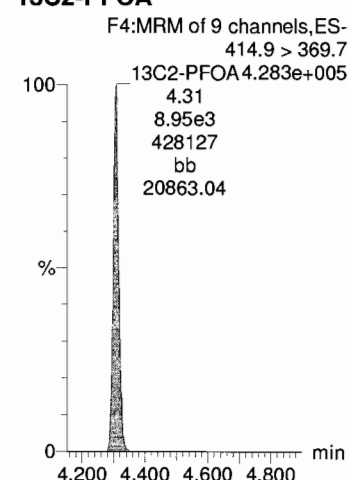
13C2-PFOA



13C4-PFOS



13C2-PFOA



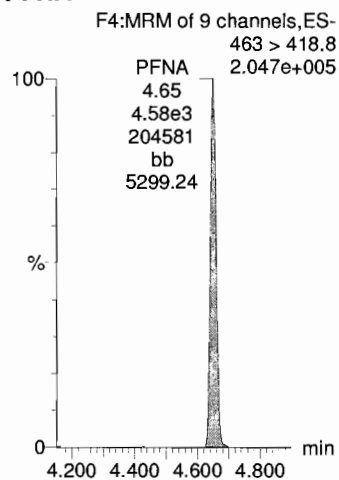
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

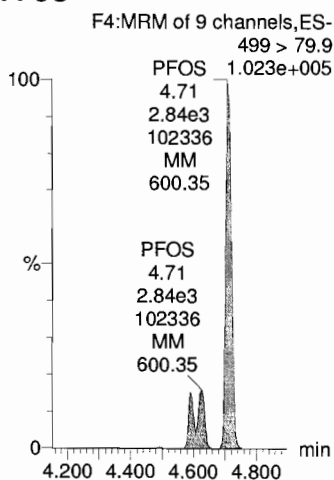
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Name: 180223G2_5, Date: 23-Feb-2018, Time: 14:07:10, ID: ST180222G3-4 PFC CS0 537 18B2303, Description: PFC CS0 537 18B2303

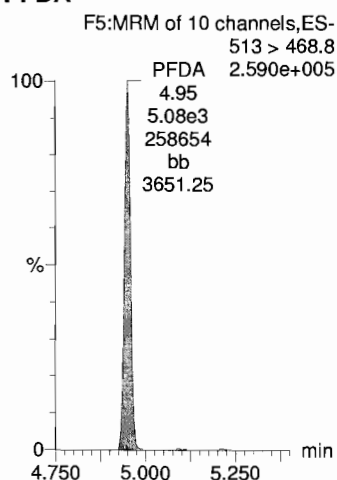
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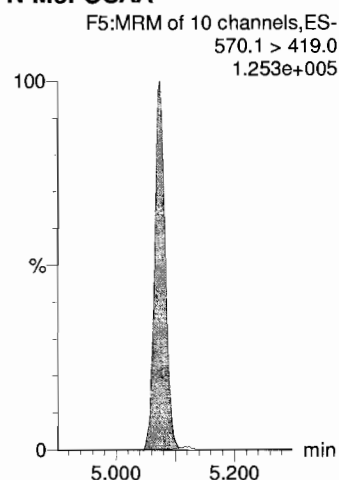
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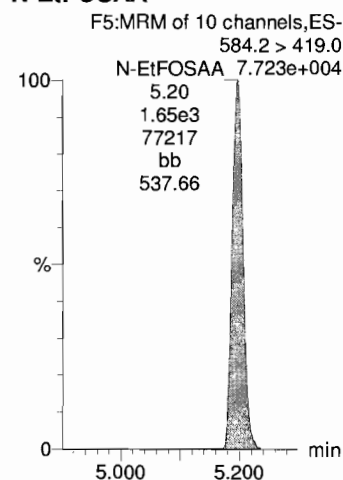
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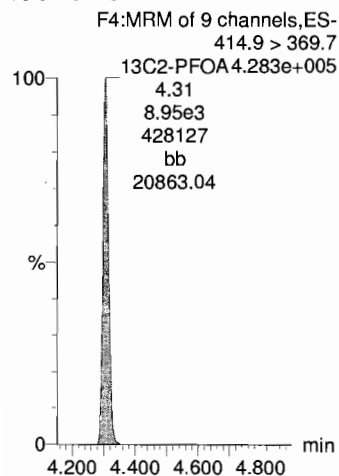
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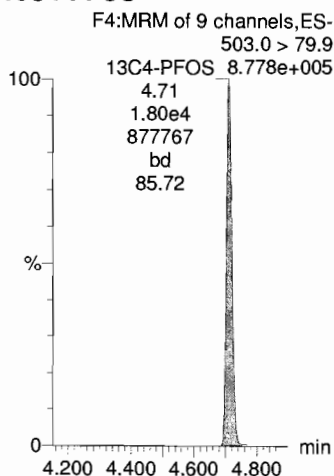
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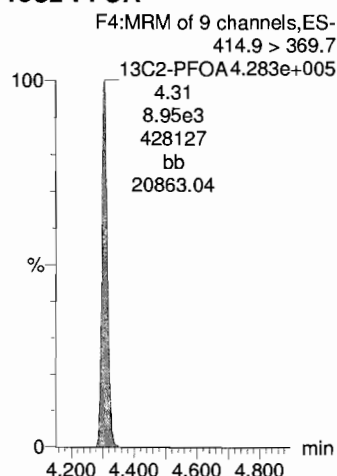
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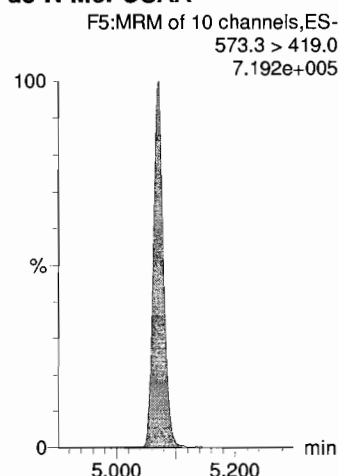
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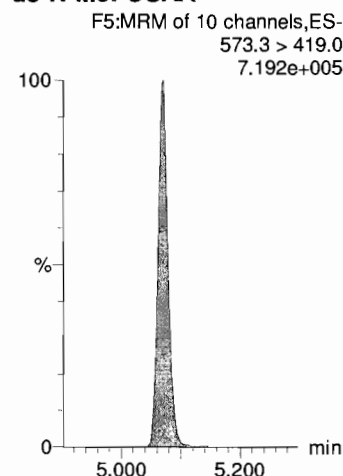
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



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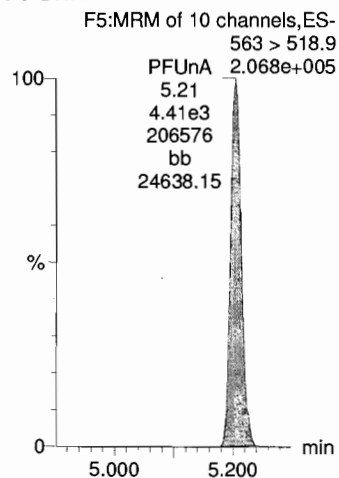
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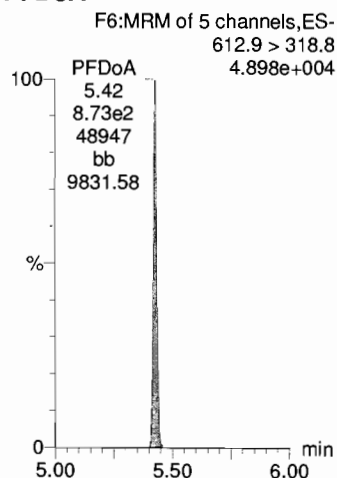
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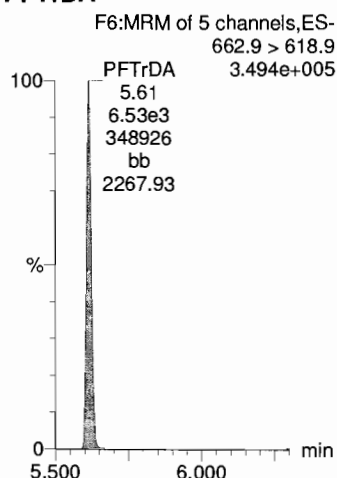
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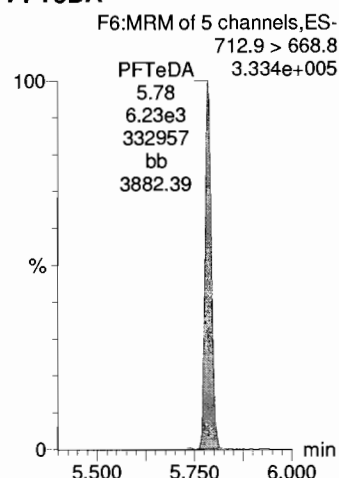
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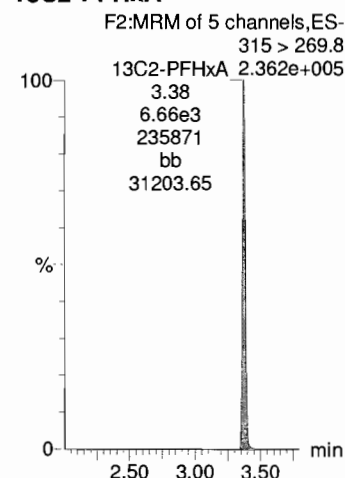
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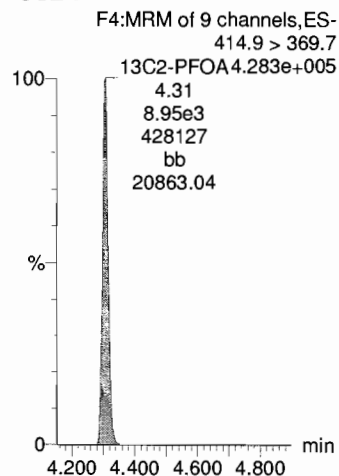
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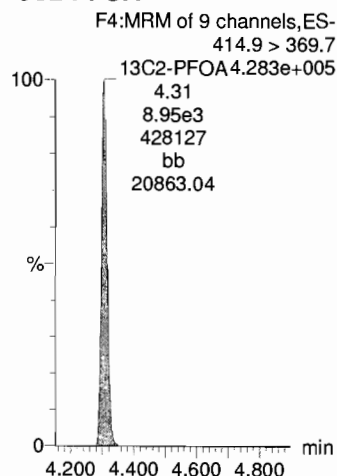
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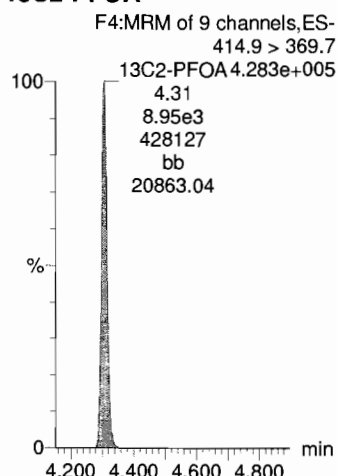
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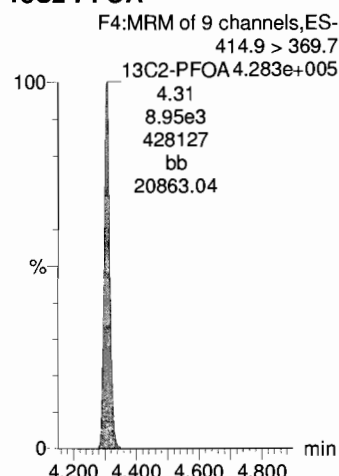
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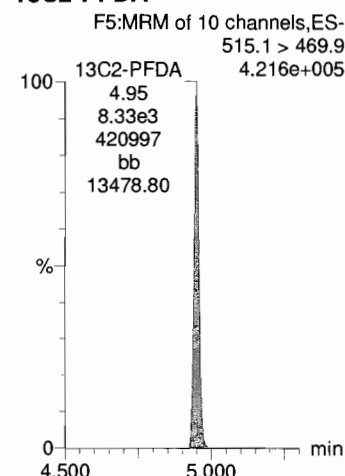
13C2-PFOA



13C2-PFOA



13C2-PFDA



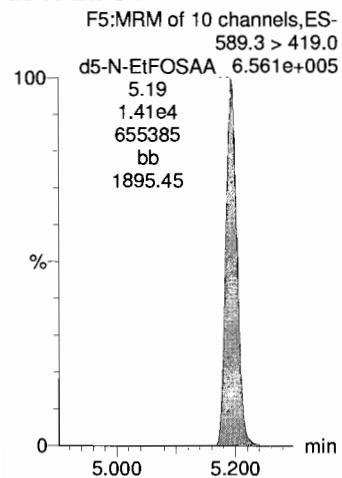
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_5, Date: 23-Feb-2018, Time: 14:07:10, ID: ST180222G3-4 PFC CS0 537 18B2303, Description: PFC CS0 537 18B2303

d5-N-EtFOSAA



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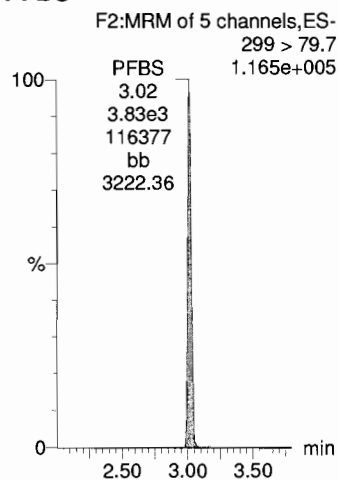
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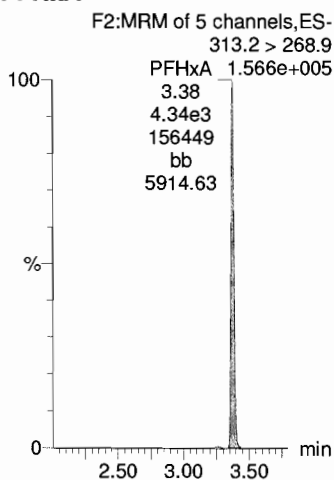
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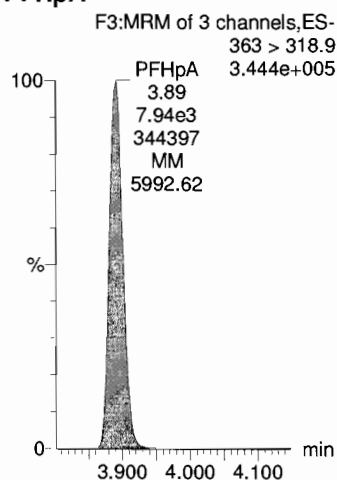
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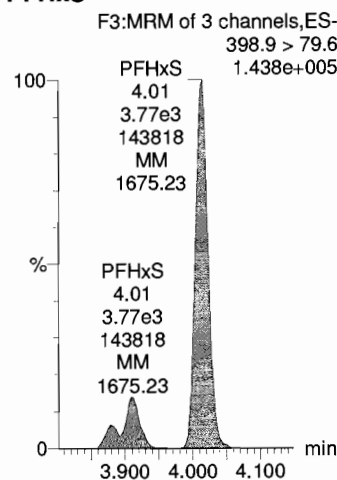
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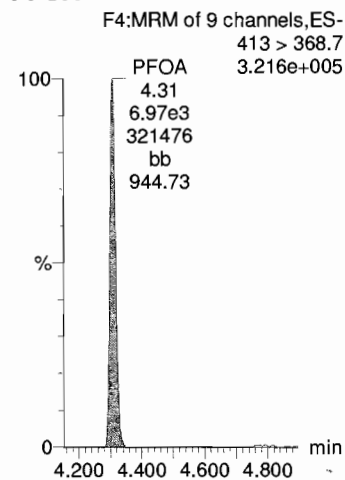
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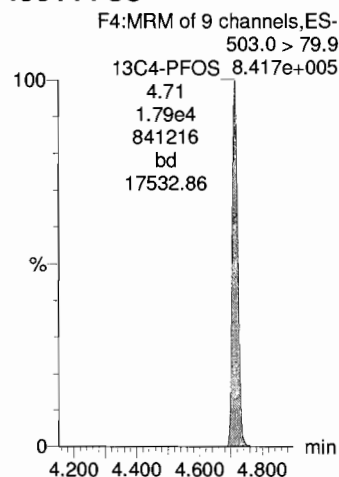
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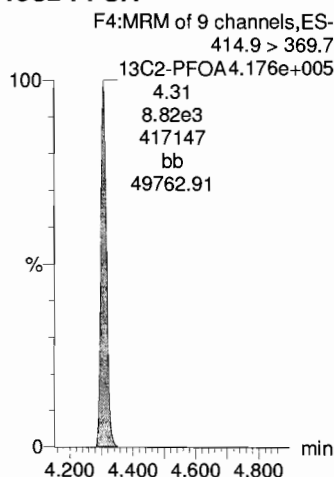
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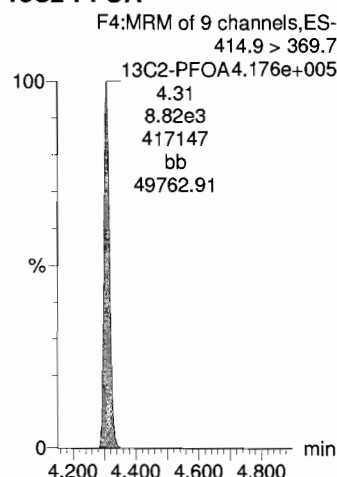
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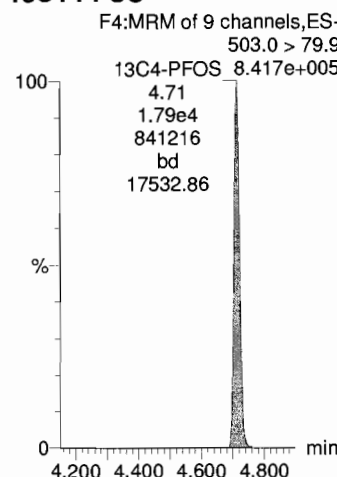
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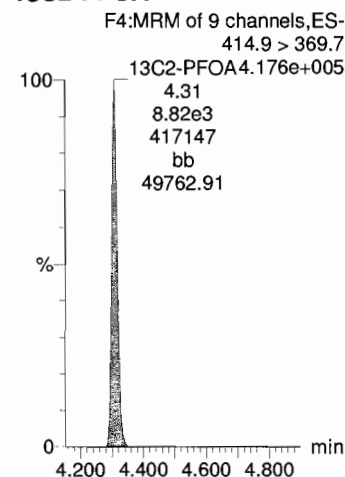
13C2-PFOA



13C4-PFOS



13C2-PFOA



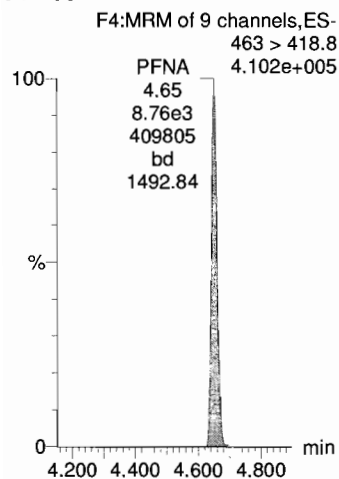
MJT 2/23/2018

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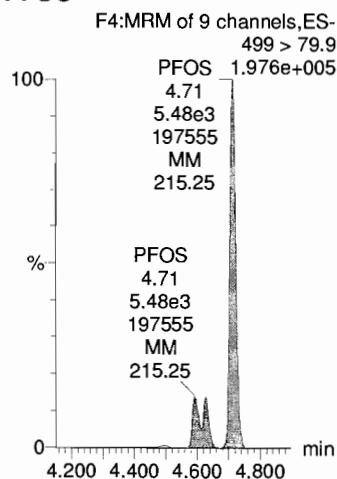
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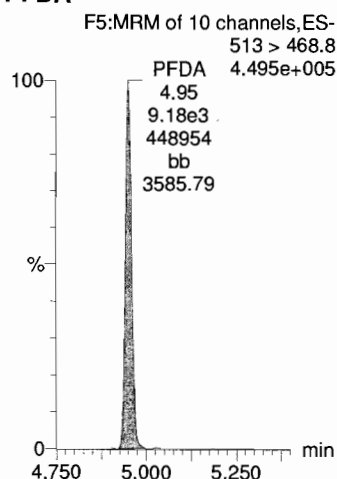
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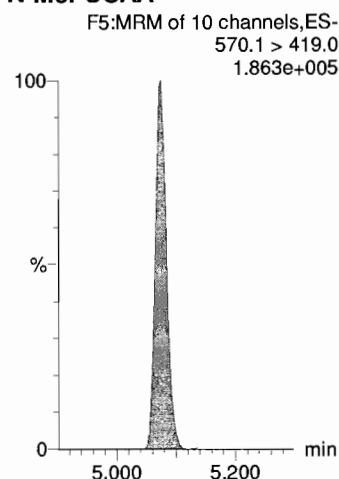
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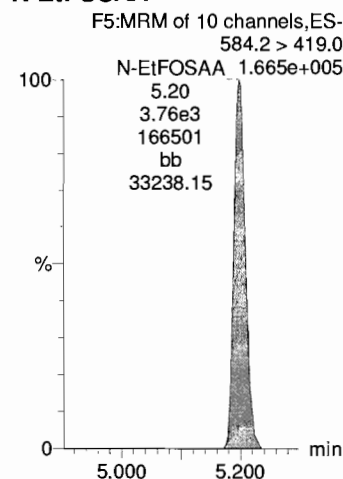
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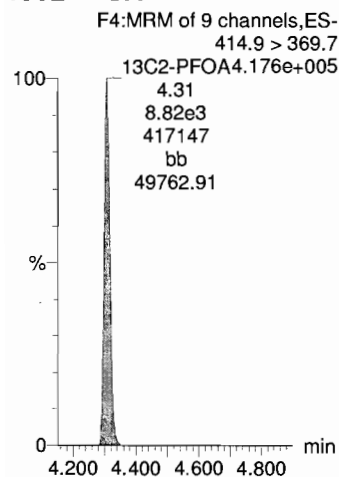
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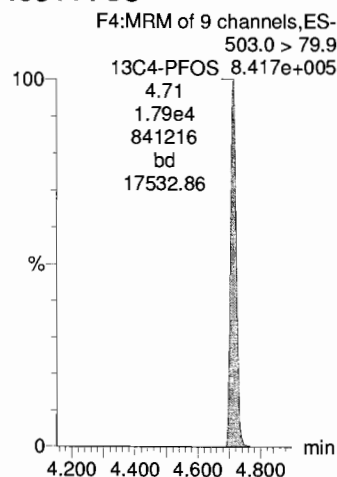
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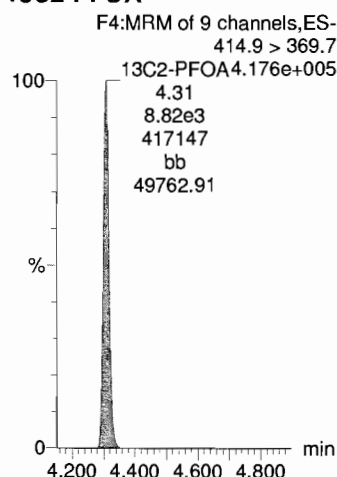
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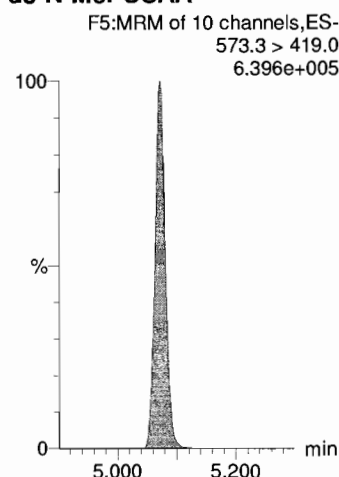
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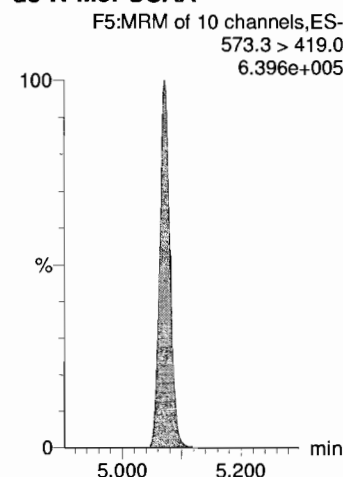
13C2-PFOA



d3-N-MeFOSAA



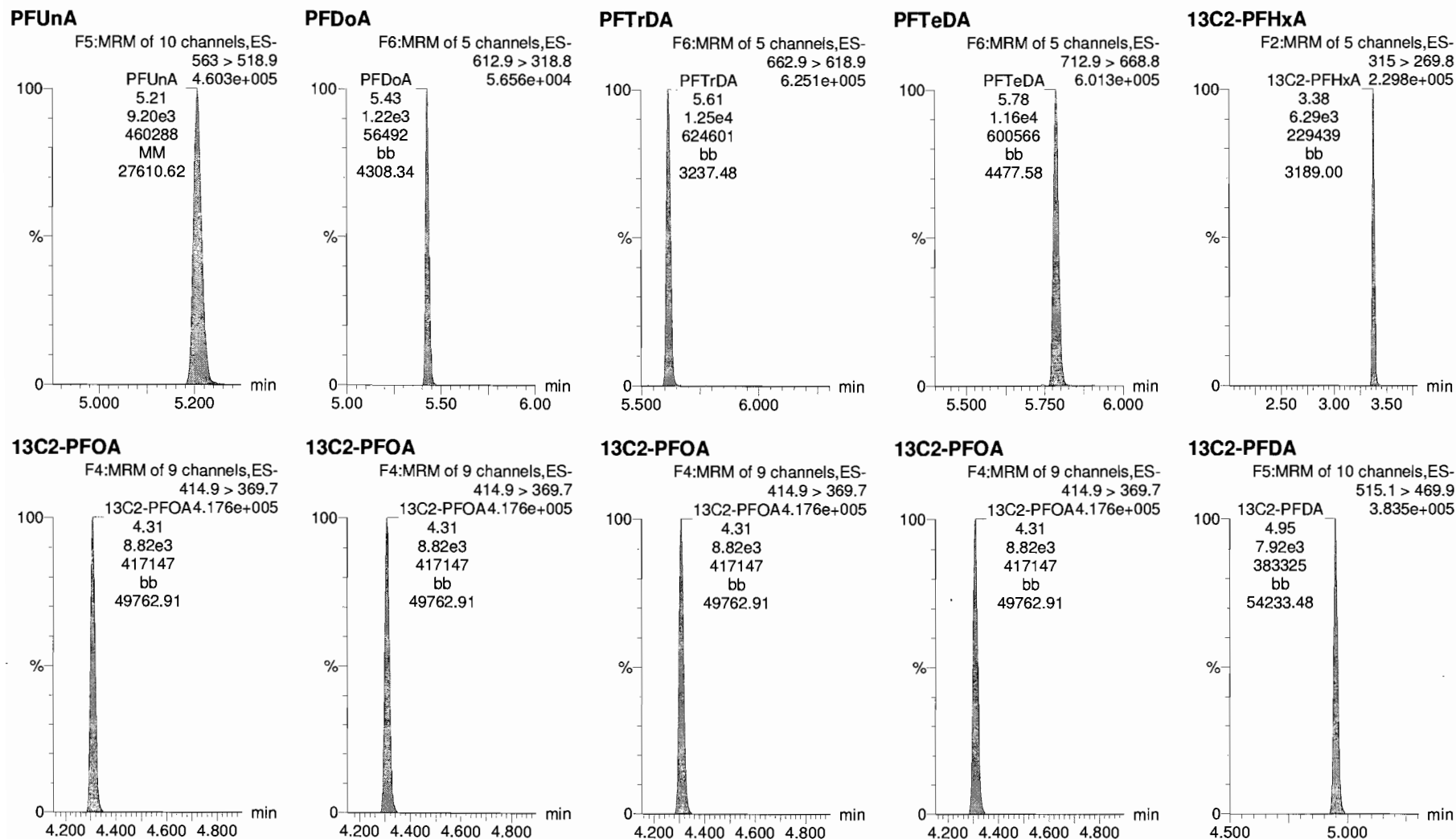
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Name: 180223G2_6, Date: 23-Feb-2018, Time: 14:19:35, ID: ST180223G2-5 PFC CS1 537 18B2304, Description: PFC CS1 537 18B2304



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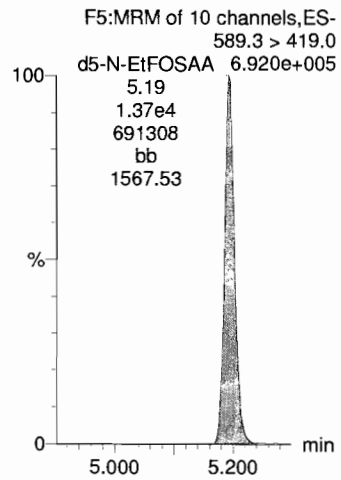
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d5-N-EtFOSAA



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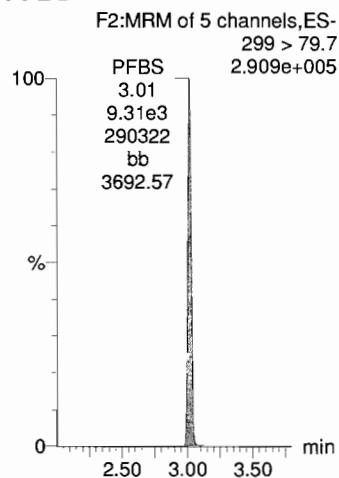
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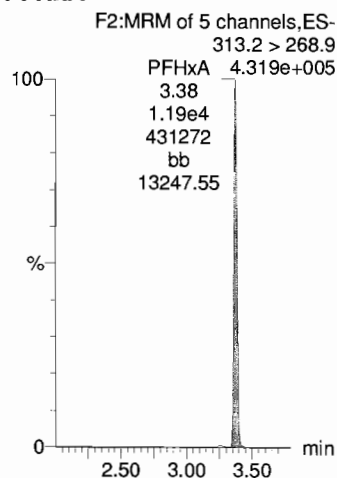
Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

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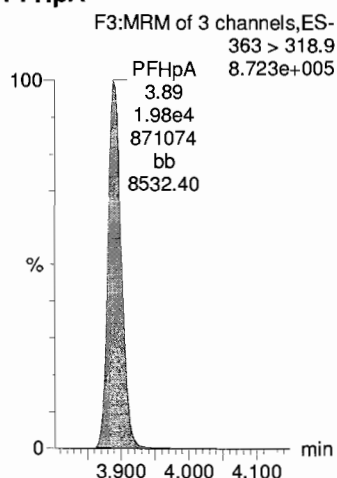
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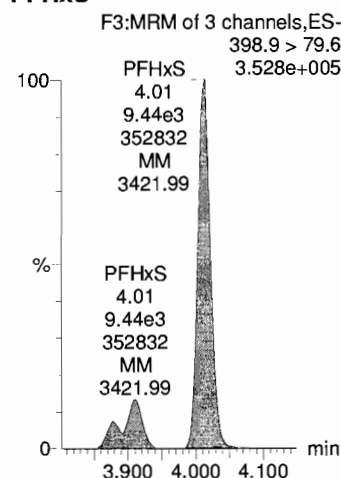
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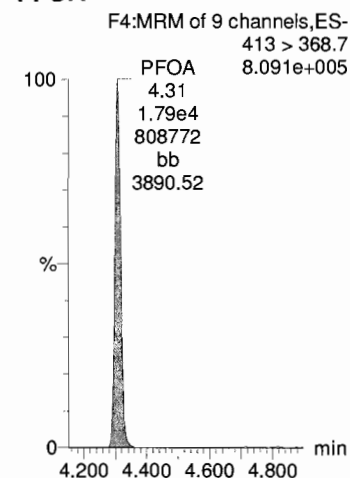
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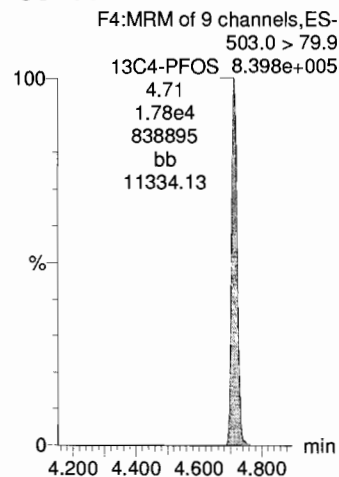
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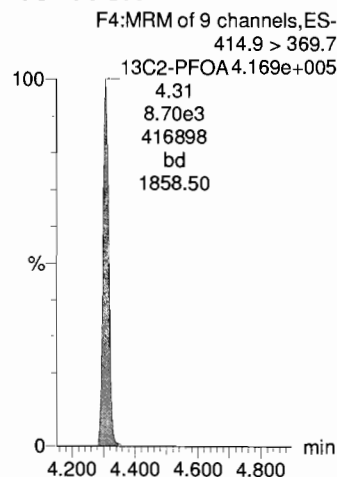
PFOA



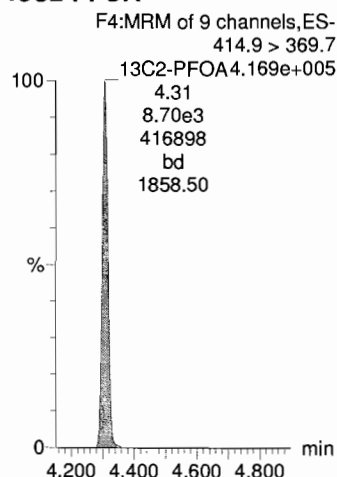
13C4-PFOS



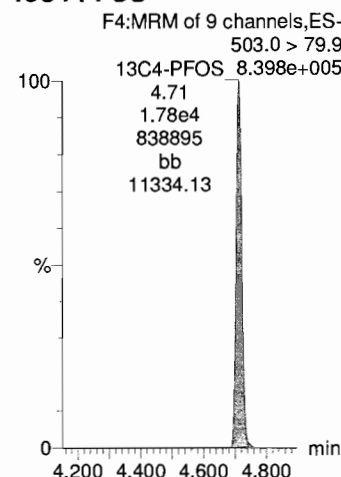
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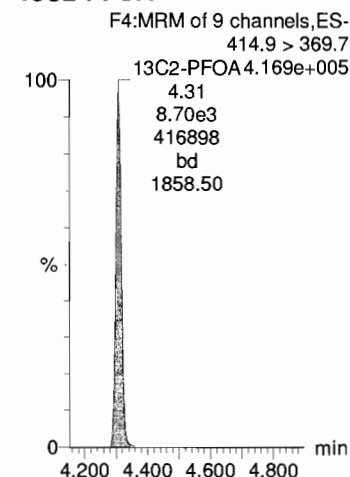
13C2-PFOA



13C4-PFOS



13C2-PFOA



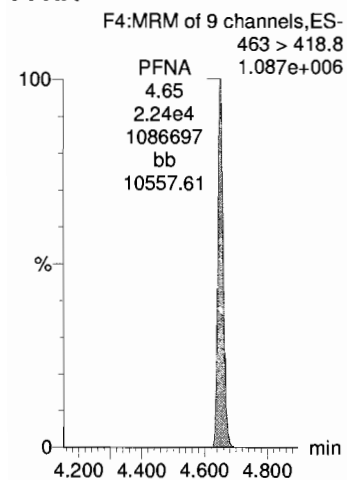
MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

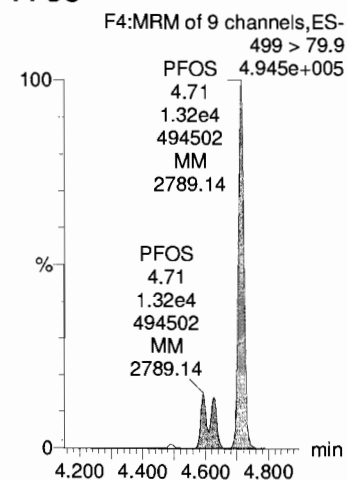
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Name: 180223G2_7, Date: 23-Feb-2018, Time: 14:32:01, ID: ST180223G2-6 PFC CS2 537 18B2305, Description: PFC CS2 537 18B2305

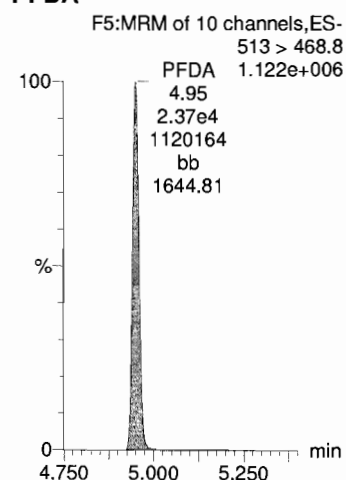
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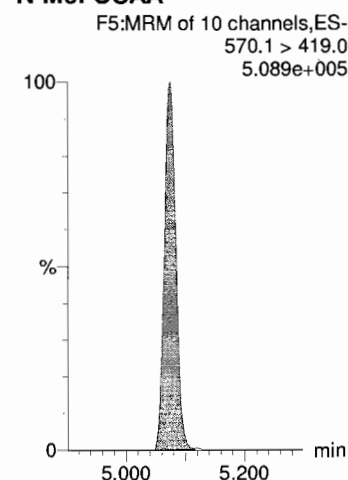
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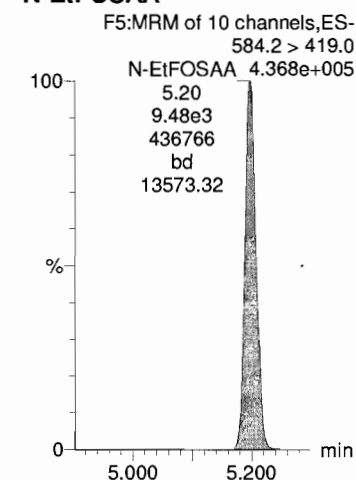
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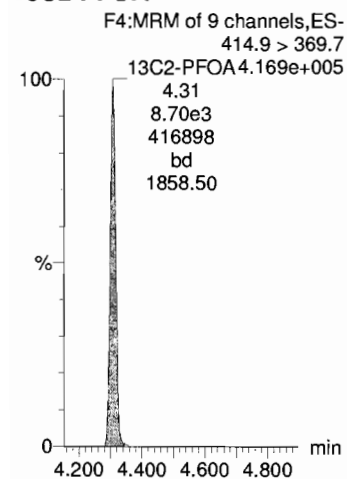
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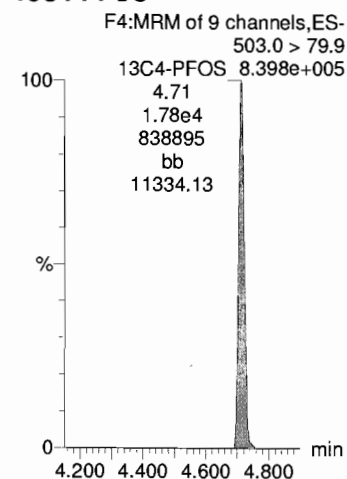
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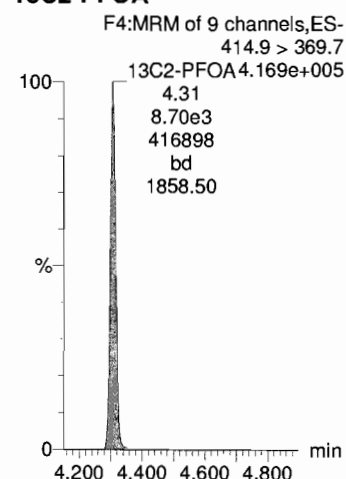
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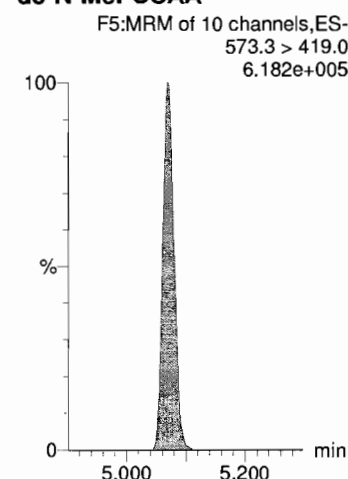
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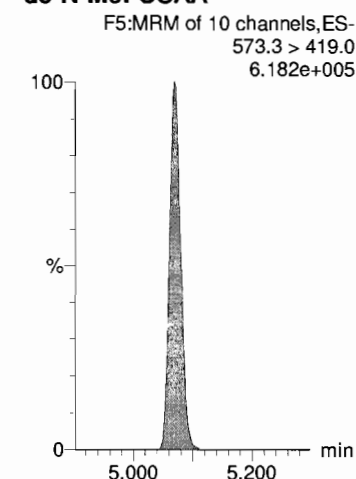
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



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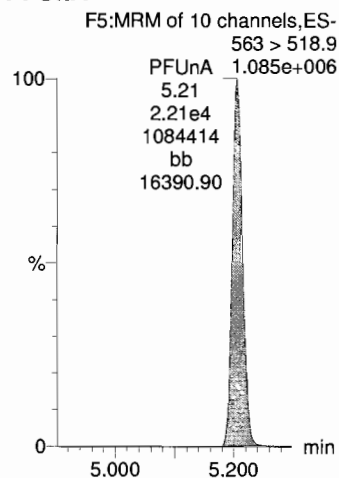
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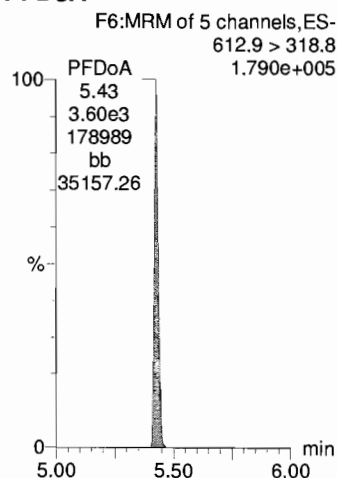
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Name: 180223G2_7, Date: 23-Feb-2018, Time: 14:32:01, ID: ST180223G2-6 PFC CS2 537 18B2305, Description: PFC CS2 537 18B2305

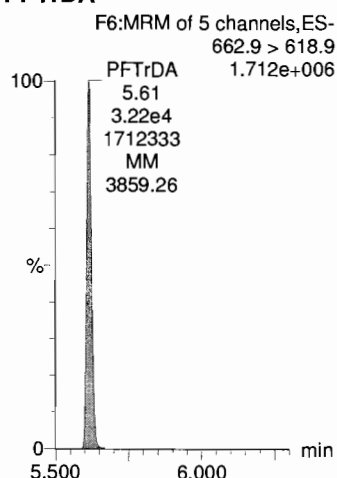
PFUnA



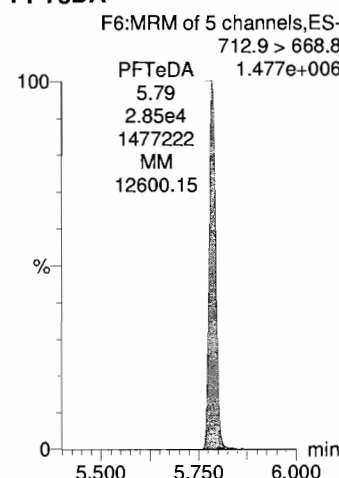
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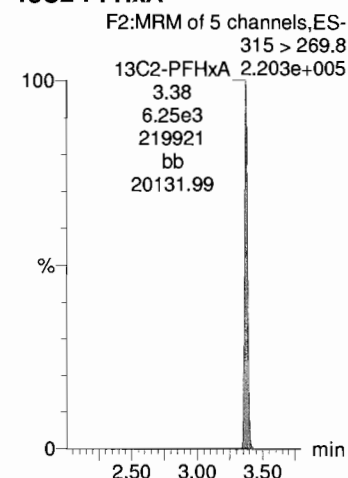
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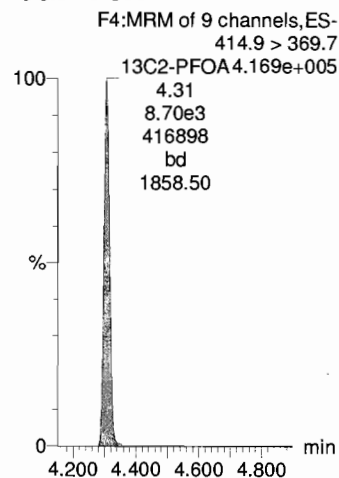
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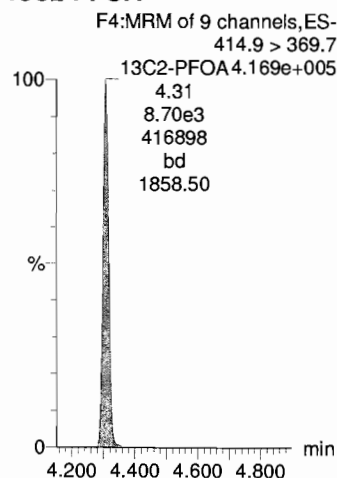
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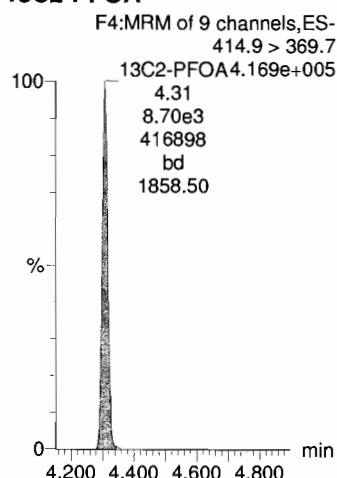
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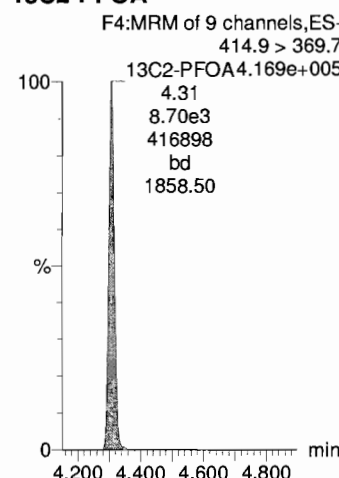
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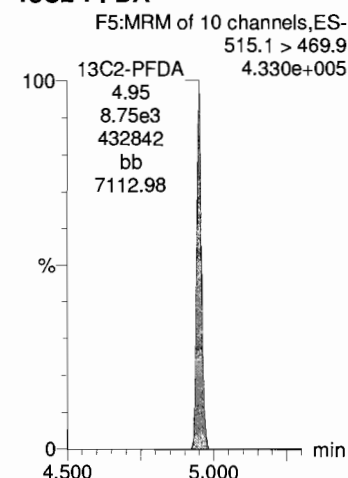
13C2-PFOA



13C2-PFOA



13C2-PFDA



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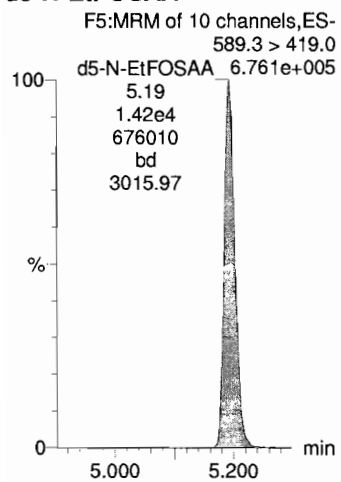
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Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_7, Date: 23-Feb-2018, Time: 14:32:01, ID: ST180223G2-6 PFC CS2 537 18B2305, Description: PFC CS2 537 18B2305

d5-N-EtFOSAA



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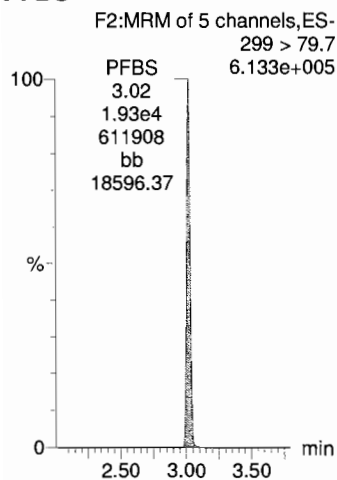
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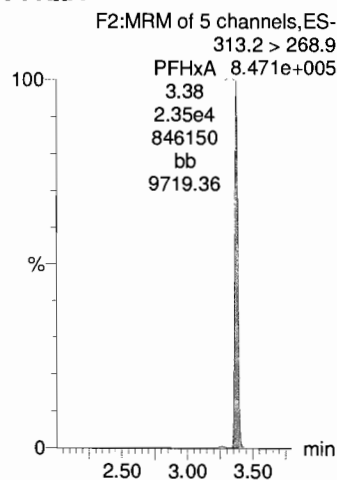
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Name: 180223G2_8, Date: 23-Feb-2018, Time: 14:44:25, ID: ST180223G2-7 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

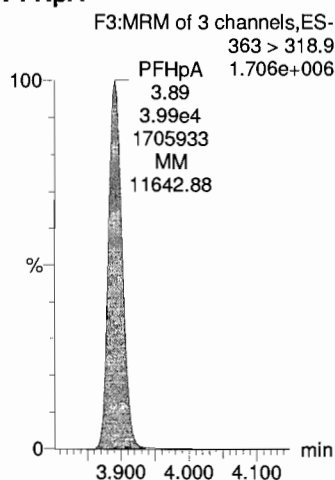
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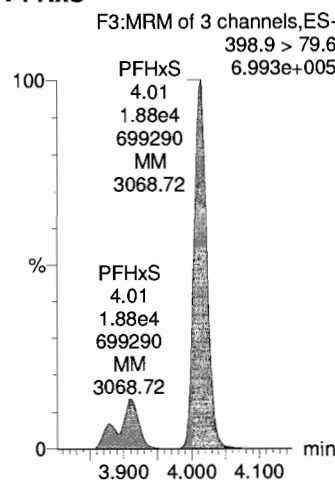
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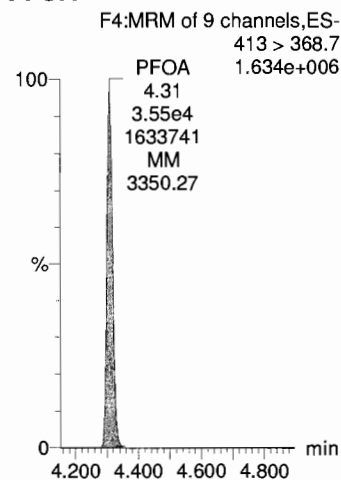
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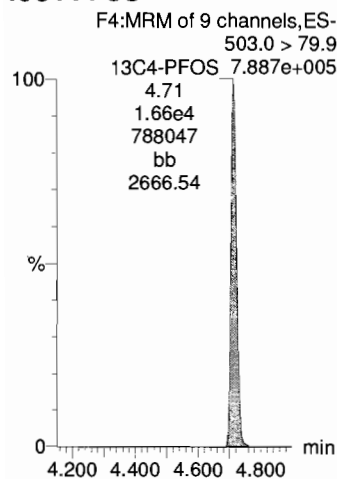
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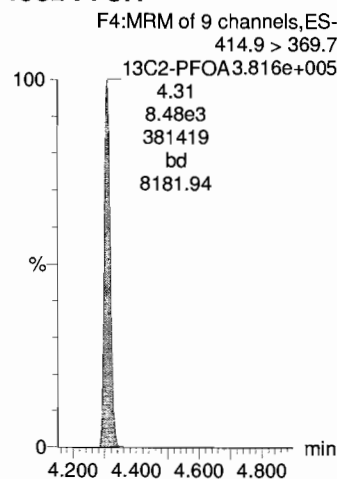
PFOA



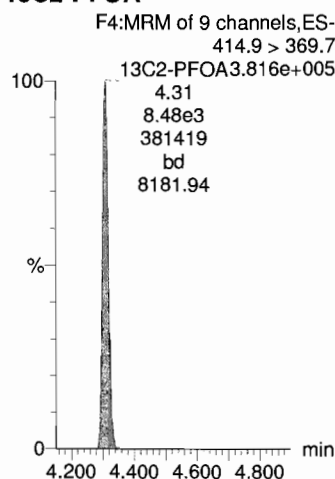
13C4-PFOS



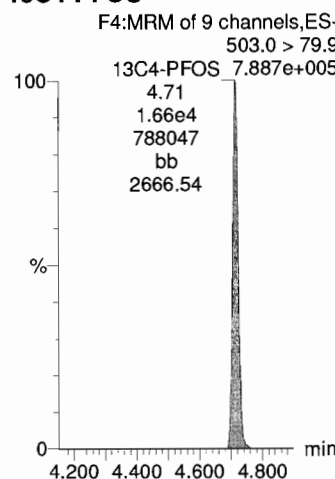
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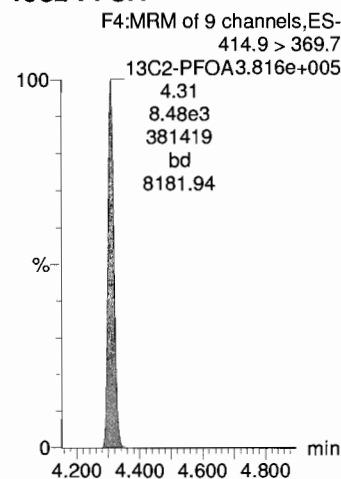
13C2-PFOA



13C4-PFOS



13C2-PFOA



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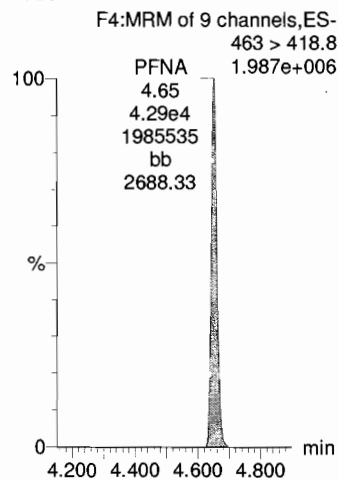
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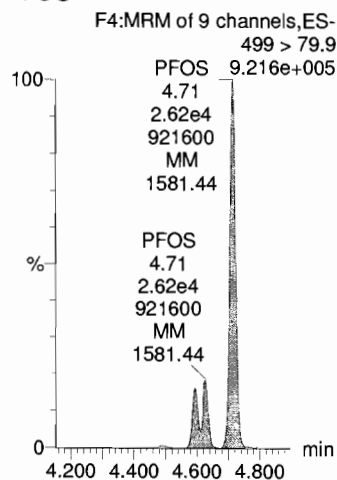
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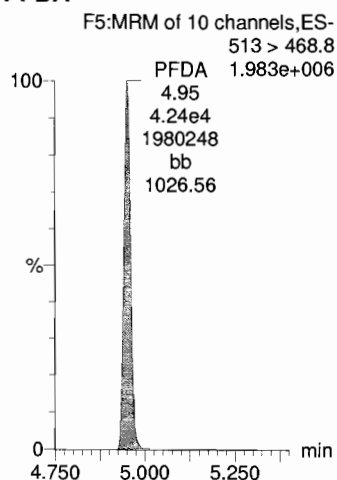
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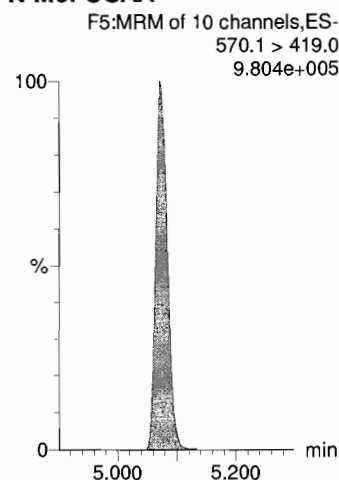
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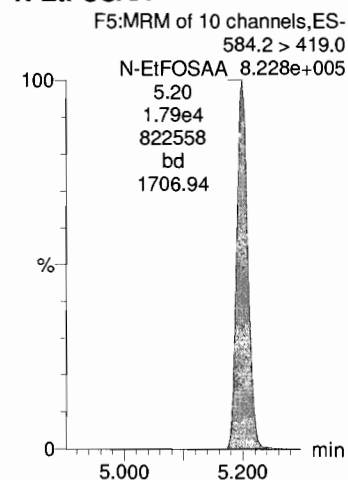
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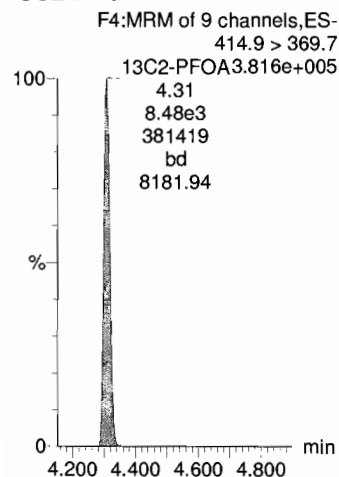
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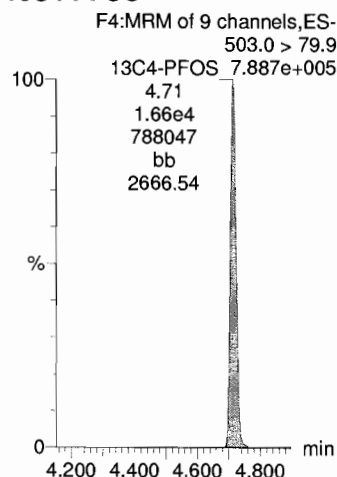
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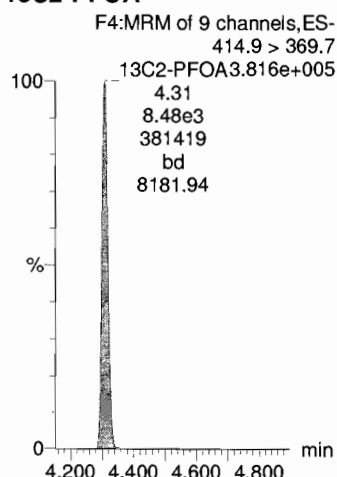
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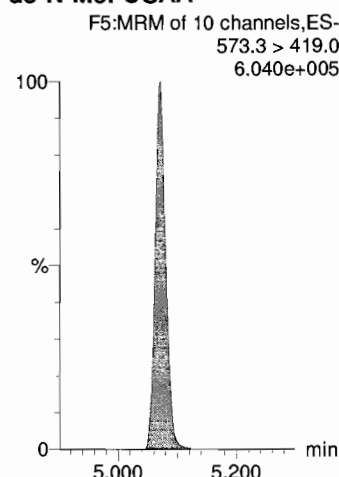
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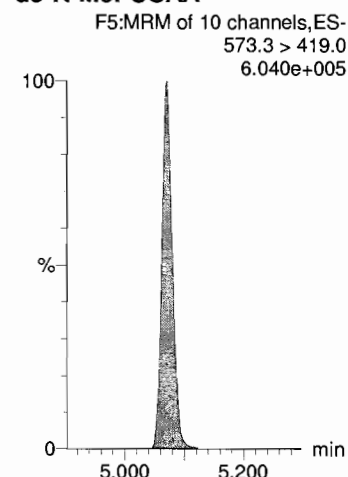
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d3-N-MeFOSAA



d3-N-MeFOSAA



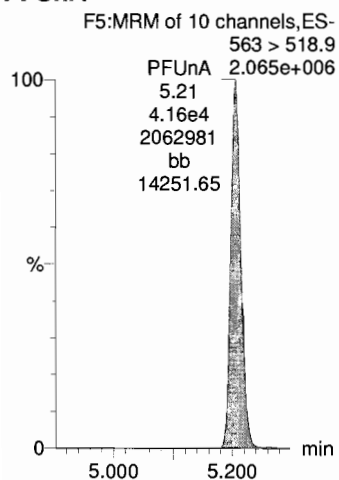
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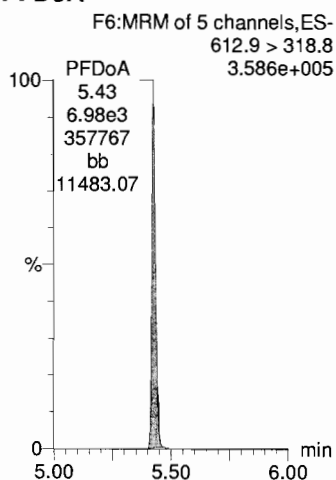
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Name: 180223G2_8, Date: 23-Feb-2018, Time: 14:44:25, ID: ST180223G2-7 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

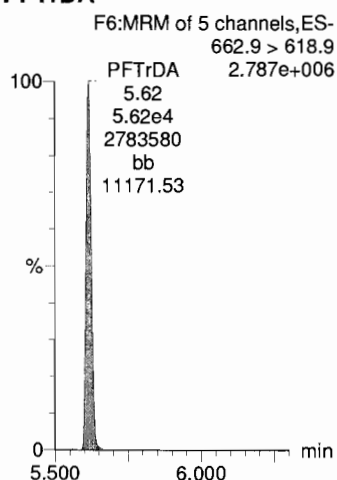
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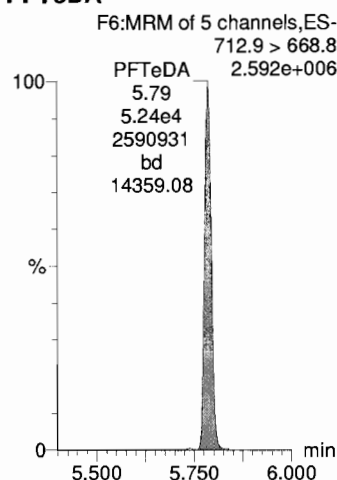
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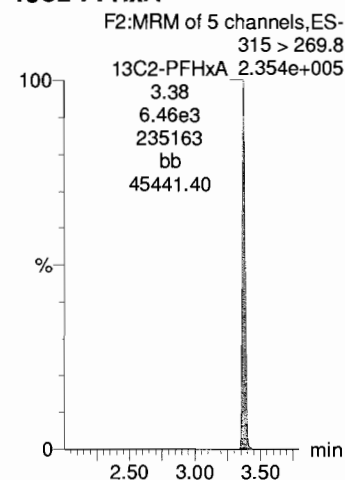
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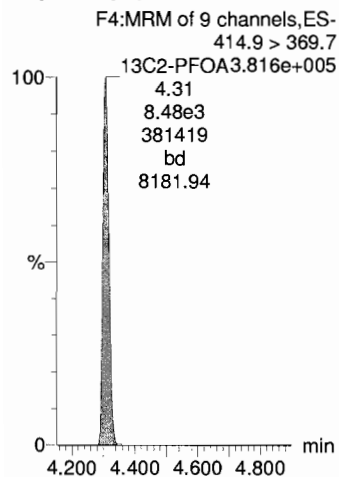
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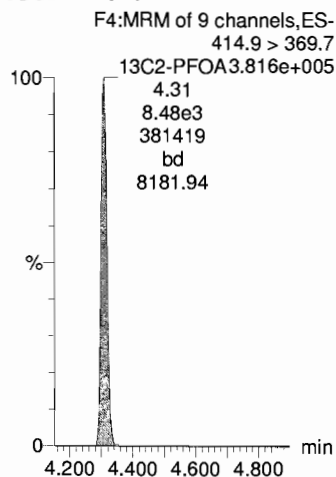
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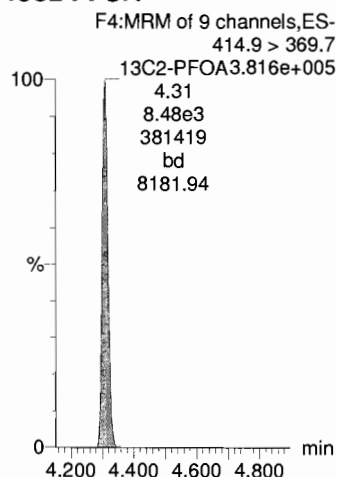
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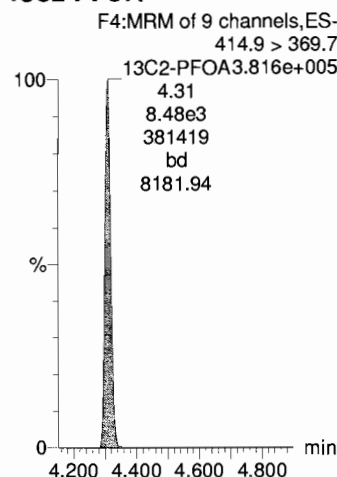
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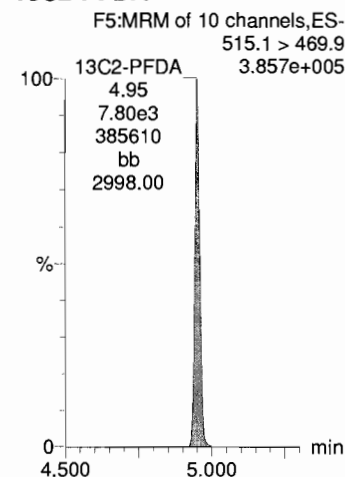
13C2-PFOA



13C2-PFOA



13C2-PFDA



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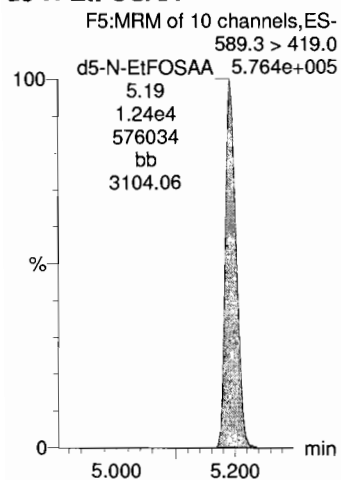
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Name: 180223G2_8, Date: 23-Feb-2018, Time: 14:44:25, ID: ST180223G2-7 PFC CS3 537 18B2306, Description: PFC CS3 537 18B2306

d5-N-EtFOSAA



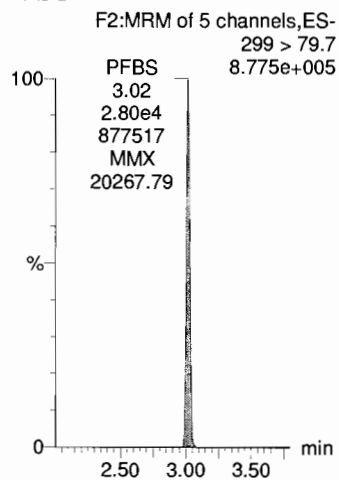
MJT 2/23/2018

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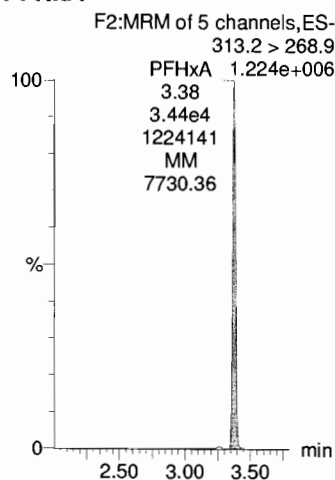
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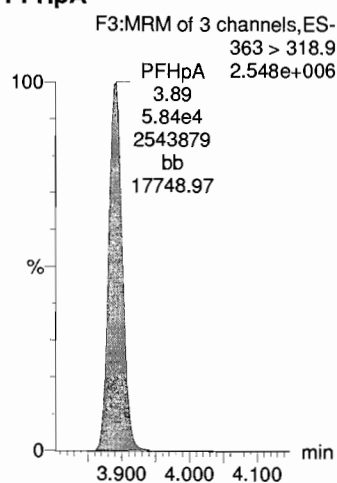
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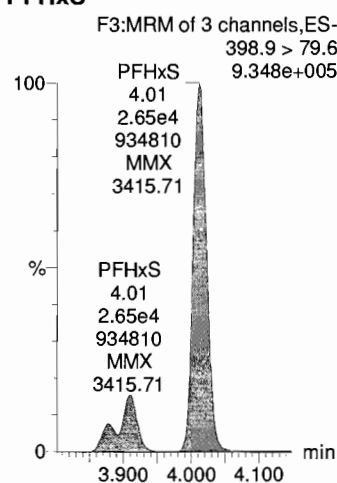
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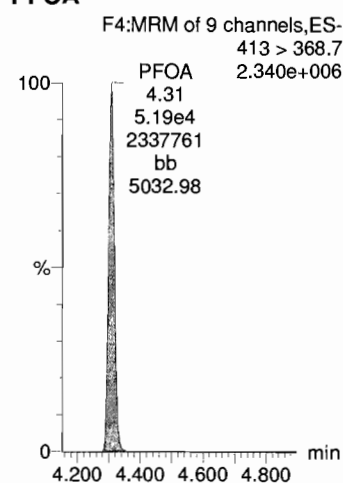
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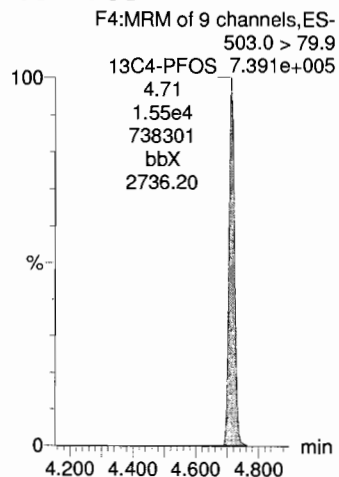
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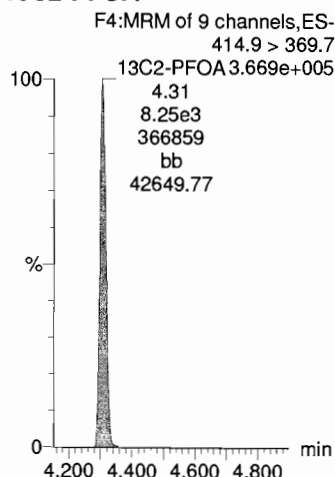
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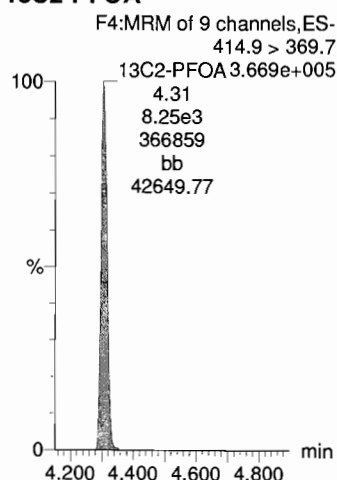
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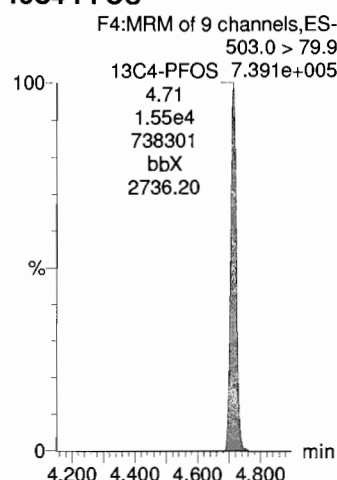
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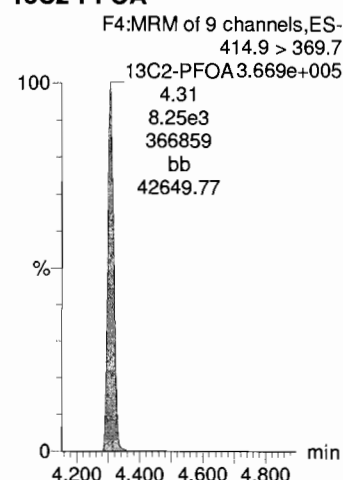
13C2-PFOA



13C4-PFOS



13C2-PFOA



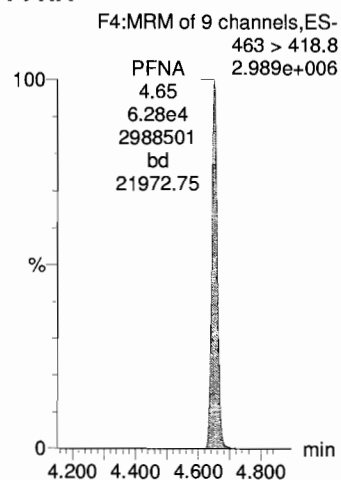
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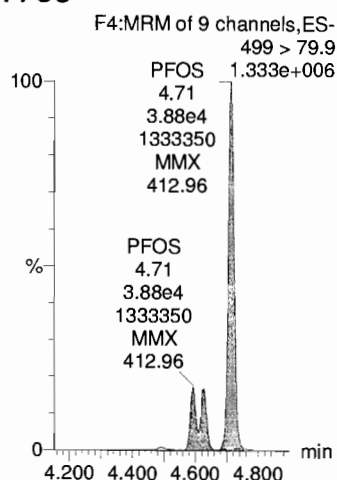
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Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307

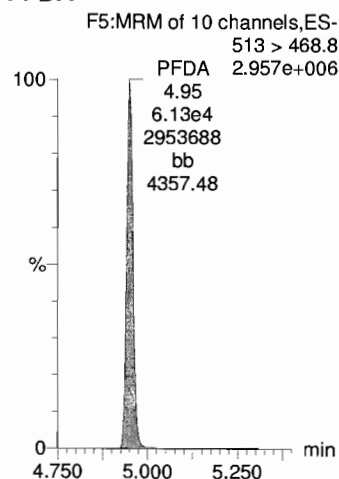
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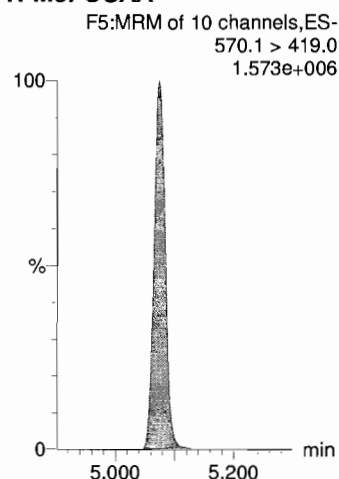
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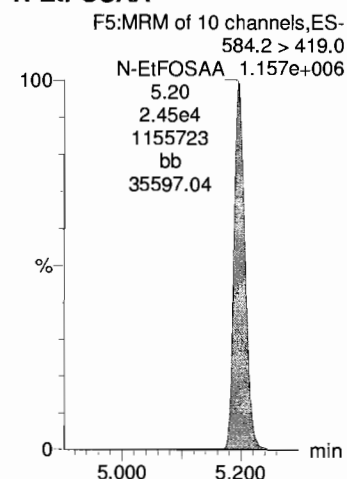
PFDA



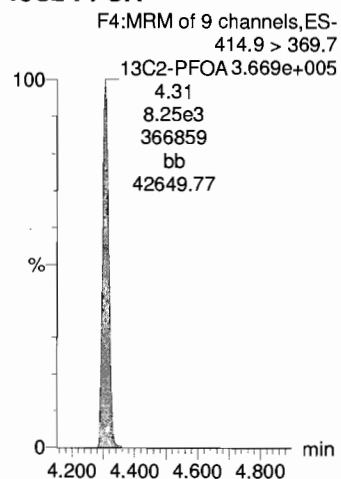
N-MeFOSAA



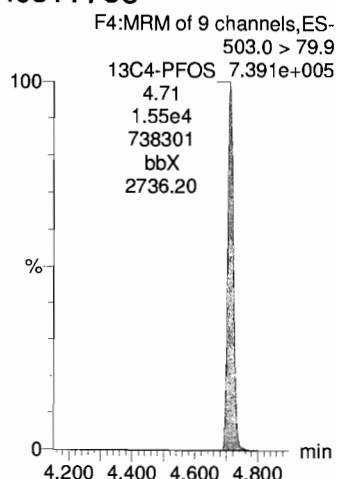
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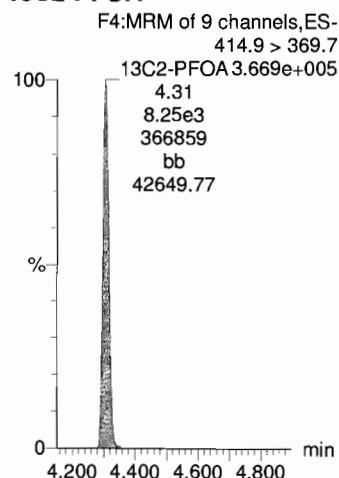
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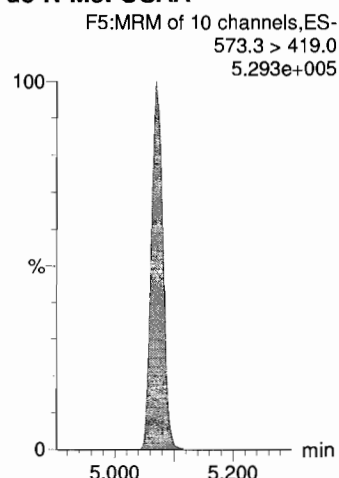
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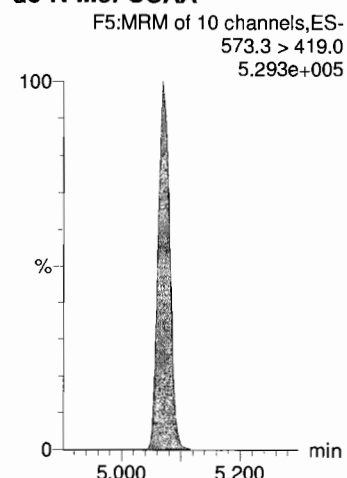
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



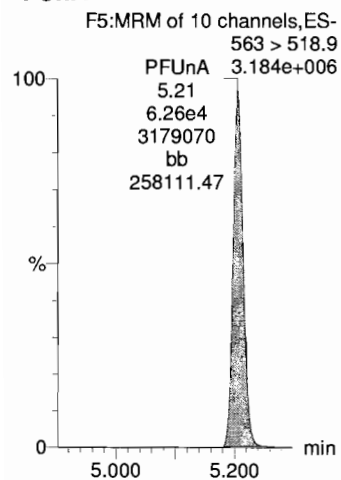
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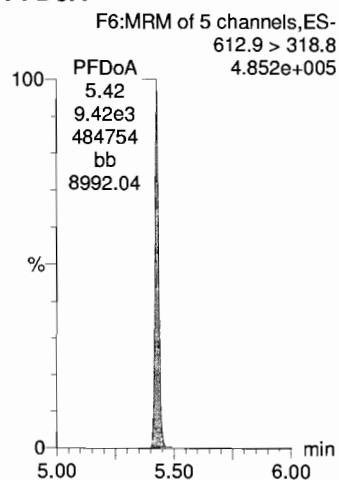
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Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307

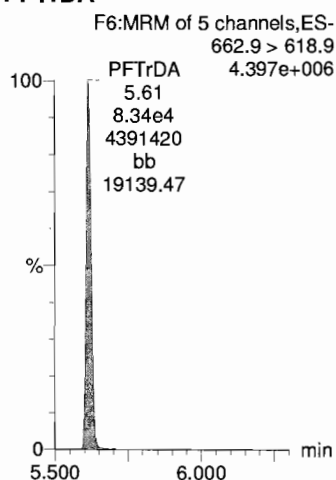
PFUnA



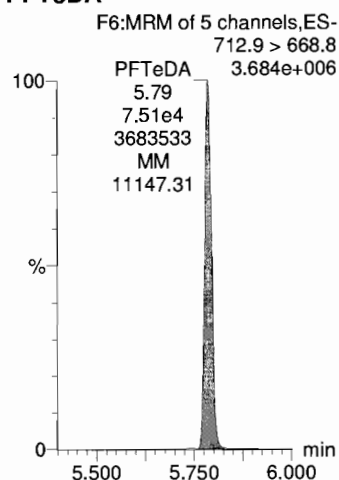
PFDaA



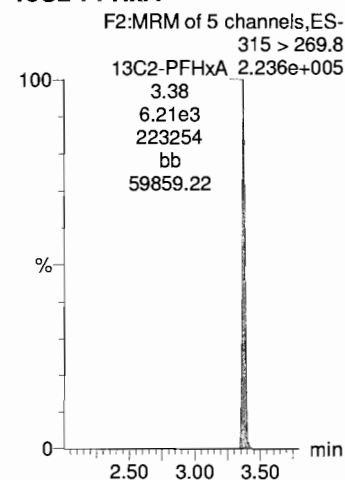
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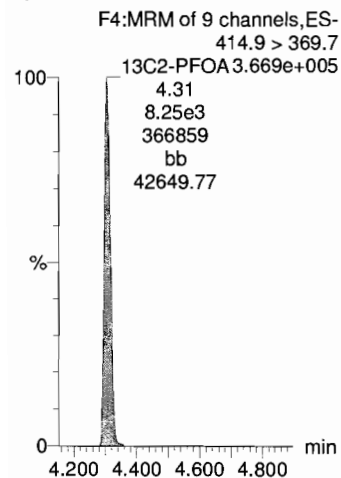
PFTeDA



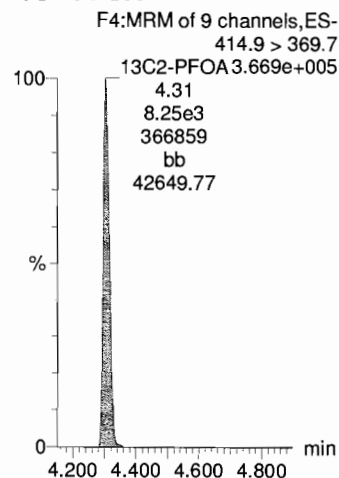
13C2-PFHxA



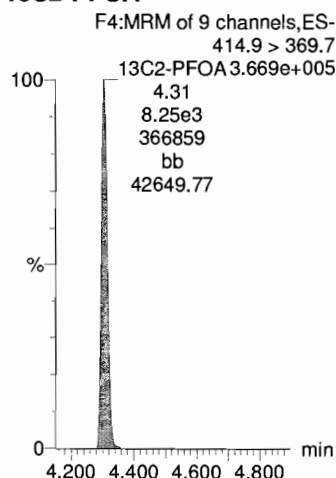
13C2-PFOA



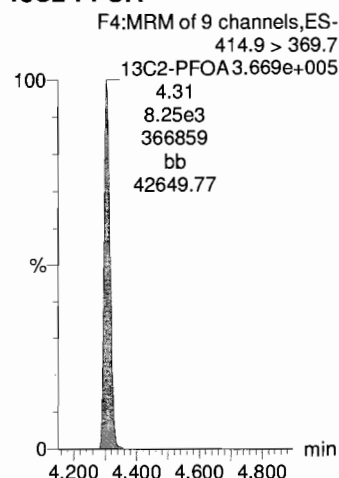
13C2-PFOA



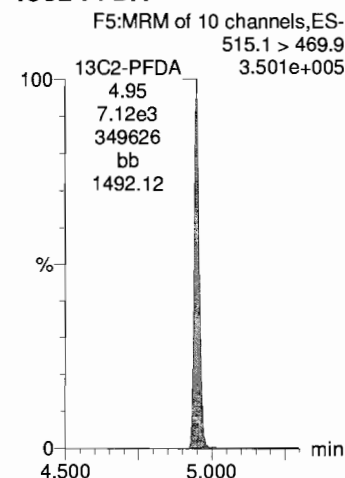
13C2-PFOA



13C2-PFOA



13C2-PFDA



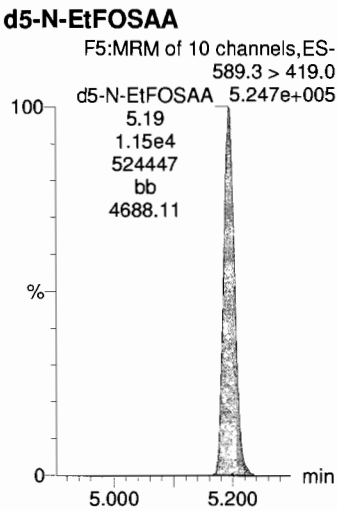
MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-CRV.qld

Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_9, Date: 23-Feb-2018, Time: 14:56:52, ID: ST180223G2-8 PFC CS4 537 18B2307, Description: PFC CS4 537 18B2307



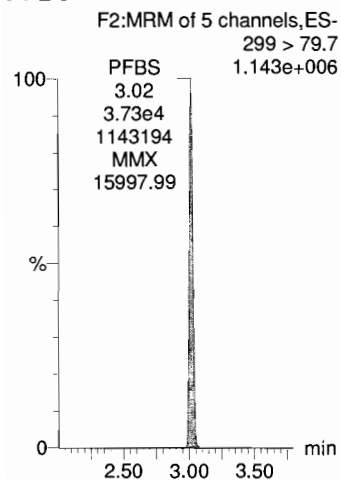
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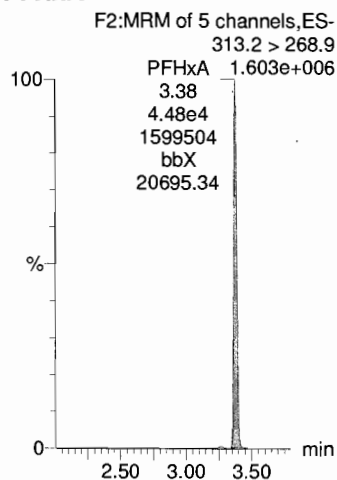
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

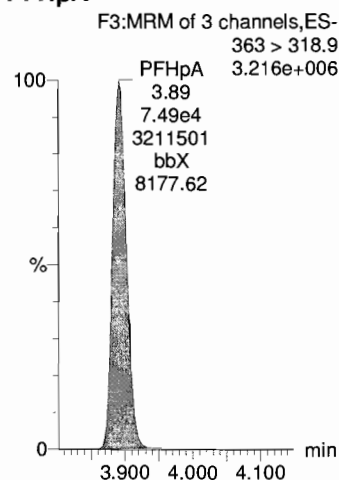
PFBS



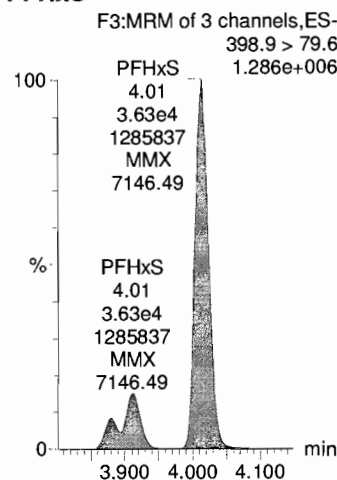
PFHxA



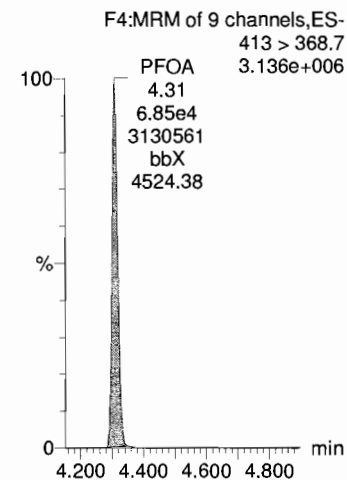
PFHpA



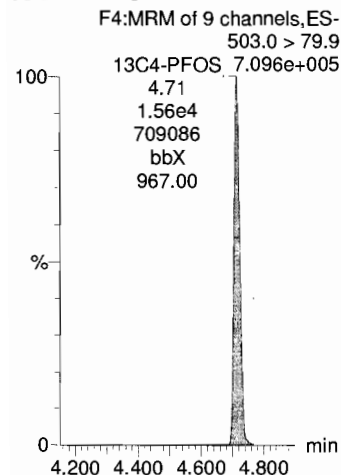
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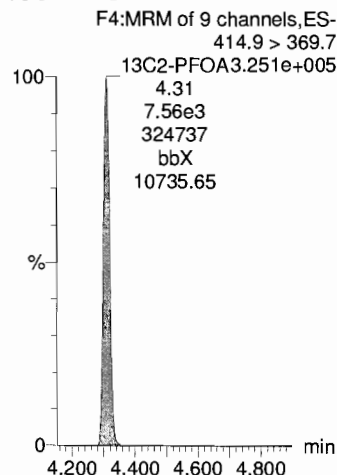
PFOA



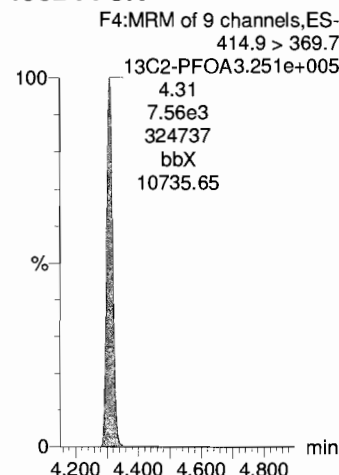
13C4-PFOS



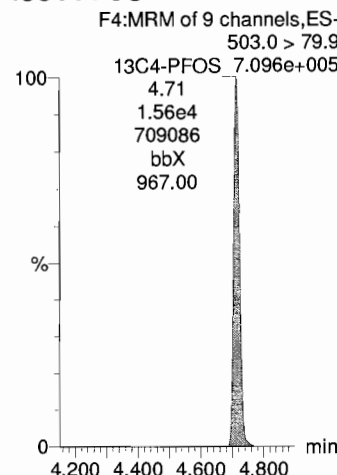
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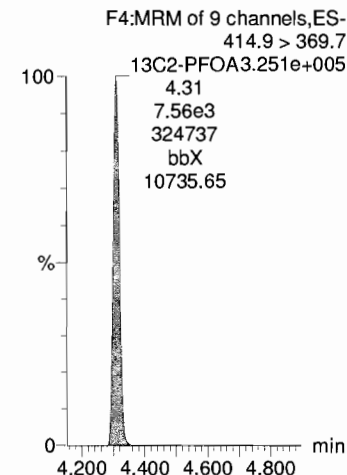
13C2-PFOA



13C4-PFOS



13C2-PFOA



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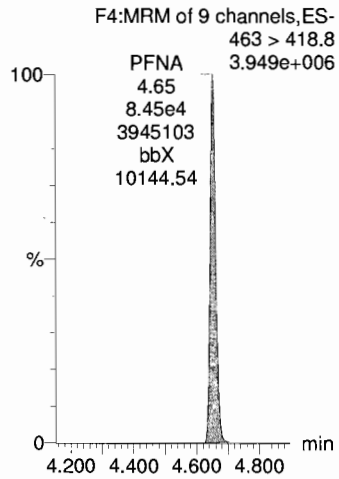
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time

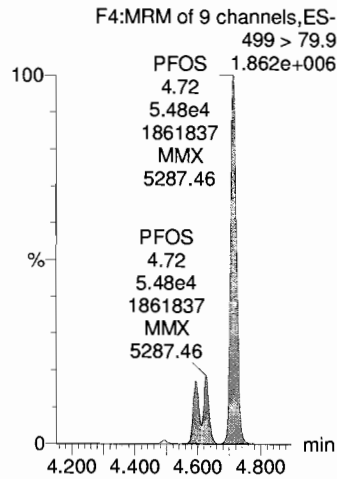
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

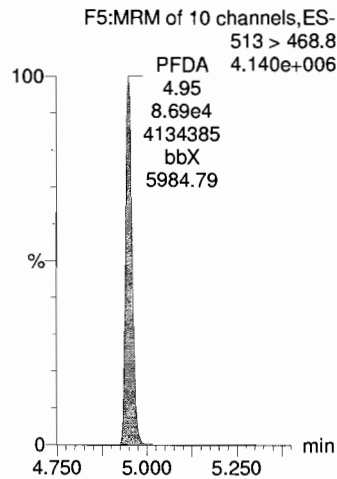
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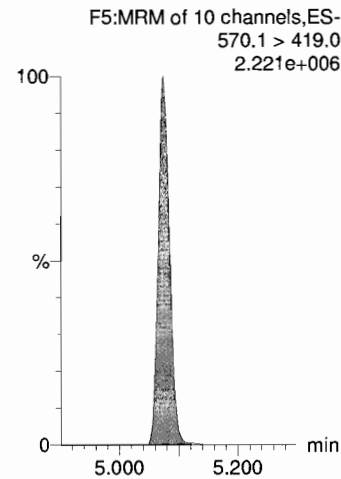
PFOS



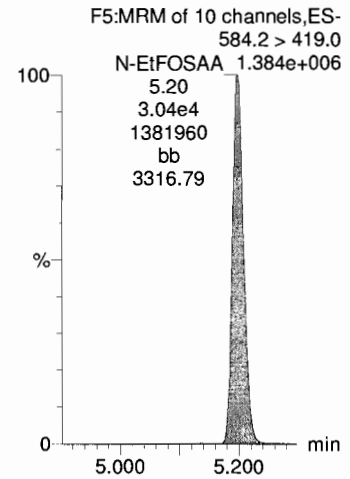
PFDA



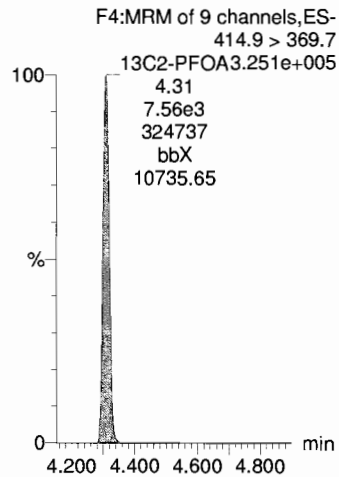
N-MeFOSAA



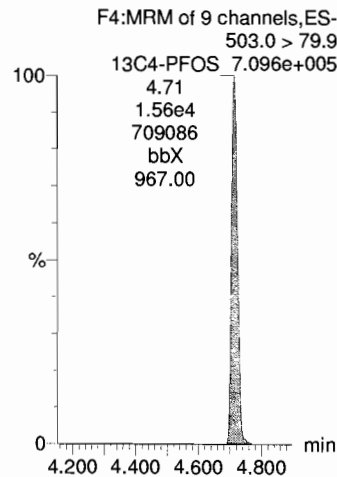
N-EtFOSAA



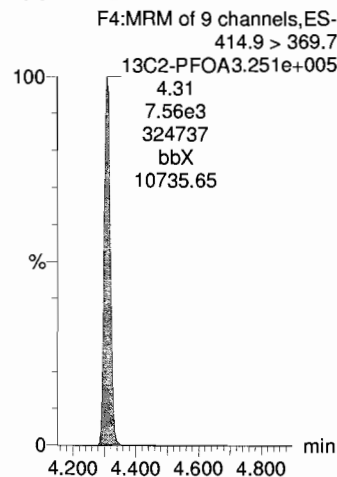
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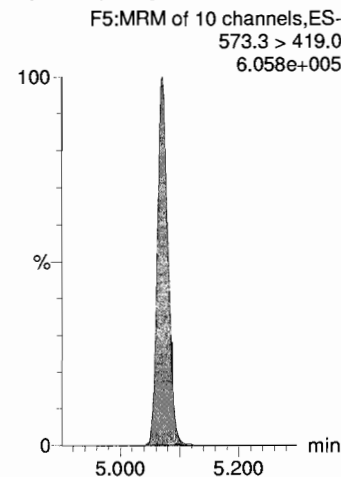
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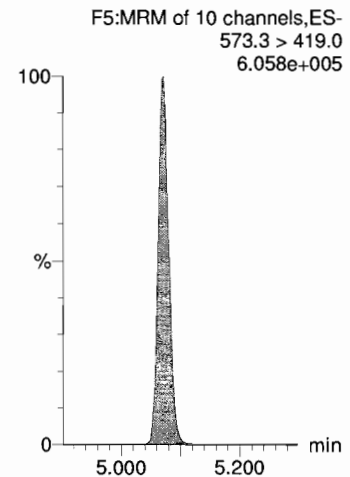
13C2-PFOA



d3-N-MeFOSAA



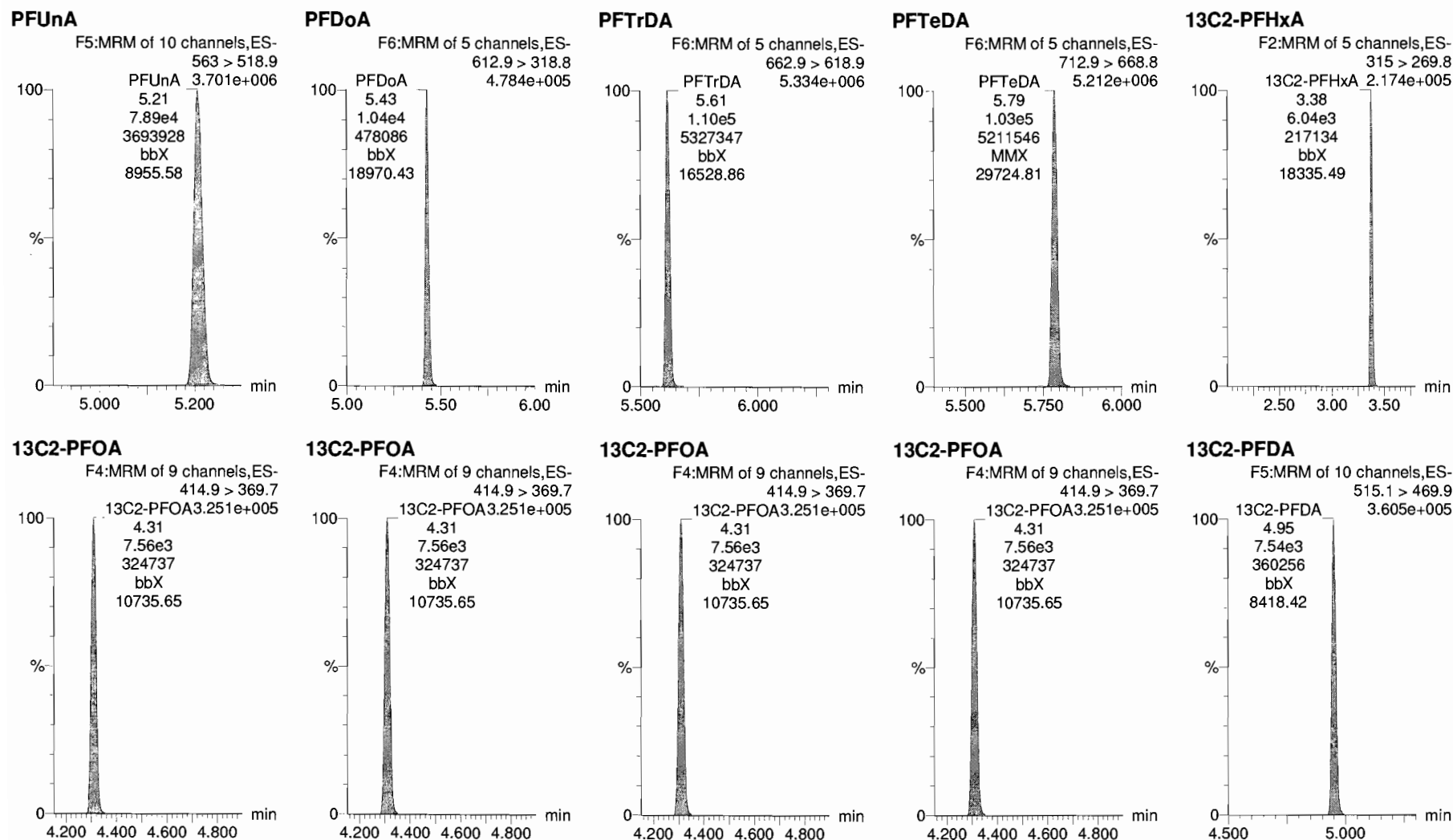
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Last Altered: Friday, February 23, 2018 17:19:15 Pacific Standard Time
Printed: Friday, February 23, 2018 17:24:39 Pacific Standard Time

Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308



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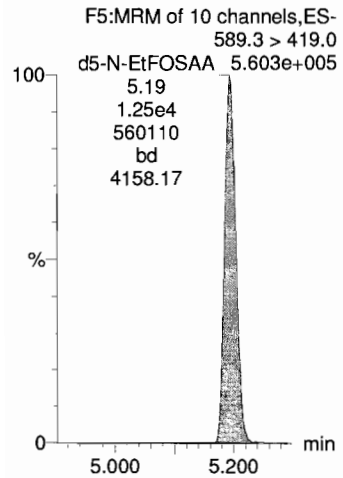
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Name: 180223G2_10, Date: 23-Feb-2018, Time: 15:09:16, ID: ST180223G2-9 PFC CS5 537 18B2308, Description: PFC CS5 537 18B2308

d5-N-EtFOSAA



MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-12.qld

Last Altered: Friday, February 23, 2018 17:29:48 Pacific Standard Time

Printed: Friday, February 23, 2018 17:30:15 Pacific Standard Time

JA
02/24/2018

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	4.38e3	1.84e4	1.0000		3.02	3.02	6.82	9.32	93.2
2	2 PFHxA	313.2 > 268.9	5.03e3	8.33e3	1.0000		3.36	3.38	6.03	10.9	109.0
3	3 PFHpA	363 > 318.9	8.62e3	8.33e3	1.0000		3.88	3.89	10.3	11.0	110.1
4	4 PFHxS	398.9 > 79.6	4.37e3	1.84e4	1.0000		4.00	4.01	6.81	9.73	97.3
5	5 PFOA	413 > 368.7	7.32e3	8.33e3	1.0000		4.31	4.31	8.78	10.5	104.8
6	6 PFNA	463 > 418.8	1.03e4	8.33e3	1.0000		4.65	4.65	12.4	12.2	122.2
7	7 PFOS	499 > 79.9	6.52e3	1.84e4	1.0000		4.71	4.71	10.2	10.6	105.7
8	8 PFDA	513 > 468.8	9.34e3	8.33e3	1.0000		4.88	4.95	11.2	10.2	102.5
9	9 N-MeFOSAA	570.1 > 419.0	4.31e3	1.17e4	1.0000		5.01	5.08	14.7	11.0	109.9
10	10 N-EtFOSAA	584.2 > 419.0	3.95e3	1.17e4	1.0000		5.19	5.20	13.5	12.7	127.3
11	11 PFUnA	563 > 518.9	1.01e4	8.33e3	1.0000		5.14	5.21	12.2	12.1	121.2
12	12 PFDoA	612.9 > 318.8	1.39e3	8.33e3	1.0000		5.34	5.43	1.67	10.5	105.2
13	13 PFTrDA	662.9 > 618.9	1.34e4	8.33e3	1.0000		5.57	5.61	16.0	11.7	116.7
14	14 PFTeDA	712.9 > 668.8	1.13e4	8.33e3	1.0000		5.74	5.78	13.5	10.8	108.4
15	15 13C2-PFHxA	315 > 269.8	6.61e3	8.33e3	1.0000	0.731	3.46	3.38	7.94	10.9	108.5
16	16 13C2-PFDA	515.1 > 469.9	7.73e3	8.33e3	1.0000	0.910	4.91	4.95	9.28	10.2	102.0
17	17 d5-N-EtFOSAA	589.3 > 419.0	1.26e4	1.17e4	1.0000	1.049	5.07	5.19	43.1	41.0	102.6
18	18 13C2-PFOA	414.9 > 369.7	8.33e3	8.33e3	1.0000	1.000	4.41	4.31	10.0	10.0	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.84e4	1.84e4	1.0000	1.000	4.81	4.71	28.7	28.7	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	1.17e4	1.17e4	1.0000	1.000	5.16	5.07	40.0	40.0	100.0

MJT 2/23/2018

Dataset: X:\G1.PRO\Results\2018\180223G2\180223G2-12.qld

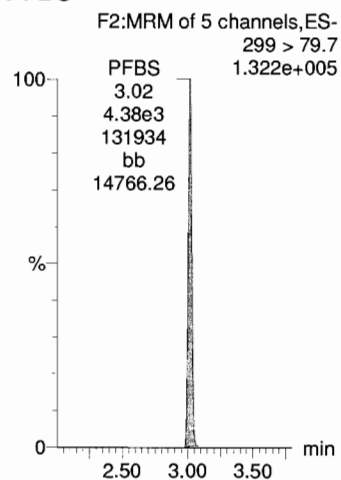
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Printed: Friday, February 23, 2018 17:30:15 Pacific Standard Time

Method: X:\G1.PRO\MethDB\PFAS_DW_L14_1223.mdb 23 Feb 2018 15:59:15

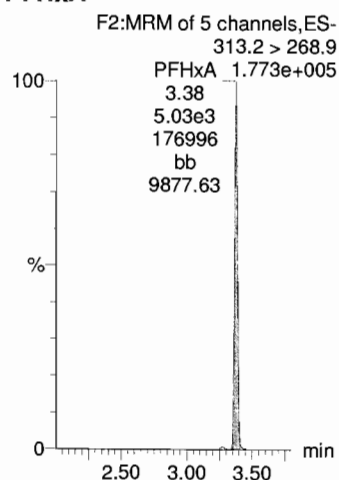
Calibration: X:\G1.PRO\CurveDB\C18_537_Q1_02-23-18_L14.cdb 23 Feb 2018 16:46:11

Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

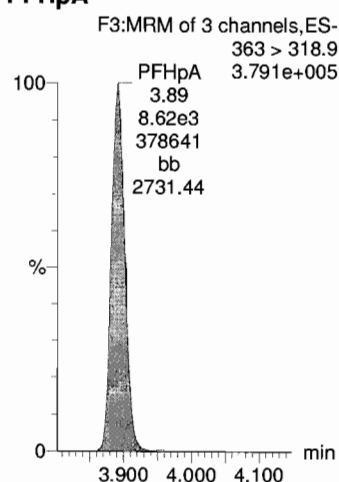
PFBS



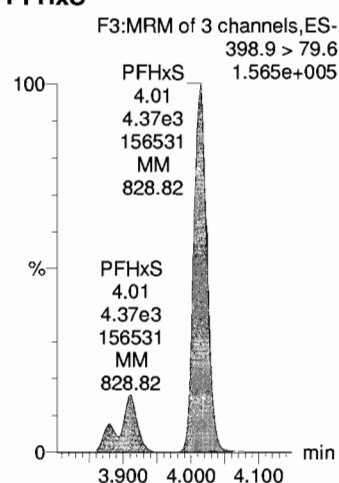
PFHxA



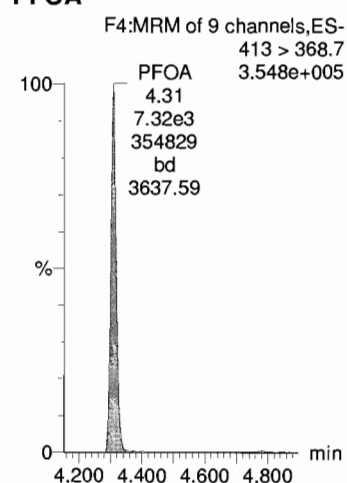
PFHpA



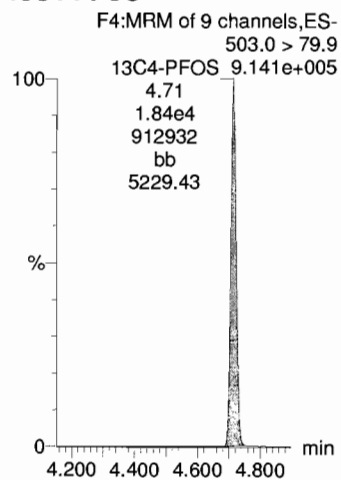
PFHxS



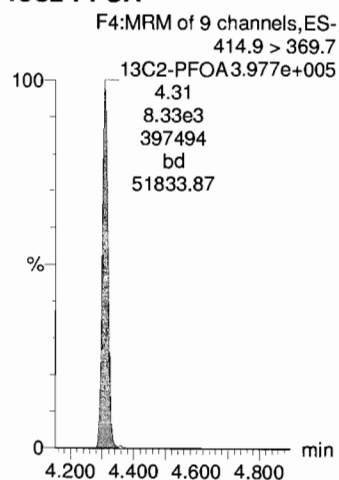
PFOA



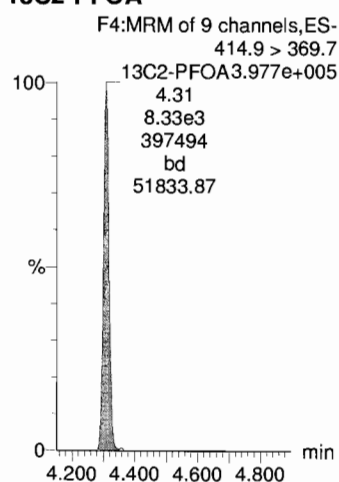
13C4-PFOS



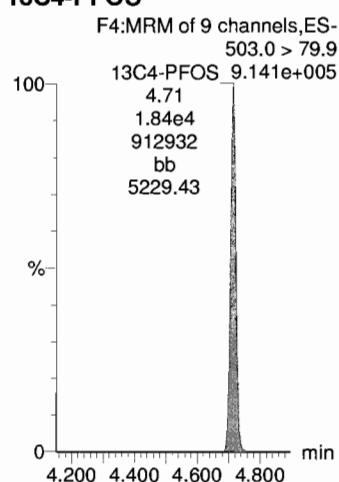
13C2-PFOA



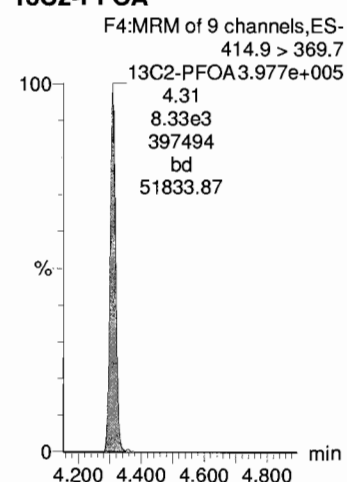
13C2-PFOA



13C4-PFOS



13C2-PFOA



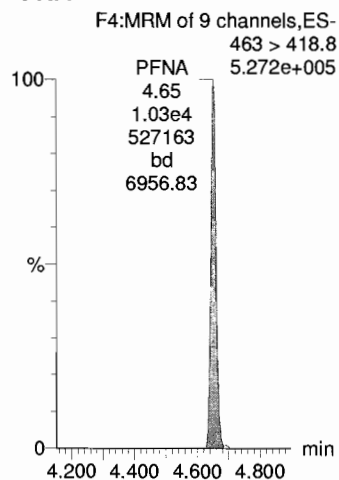
MJT 2/23/2018

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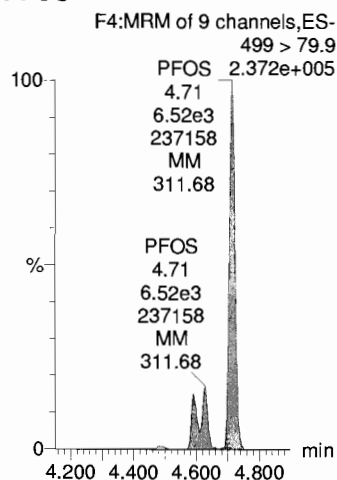
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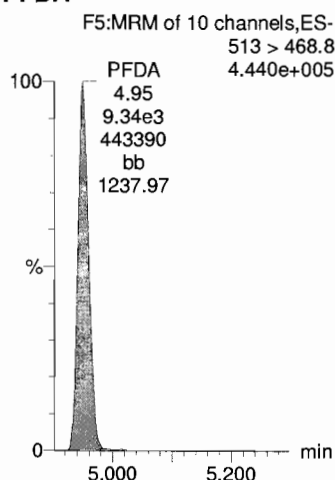
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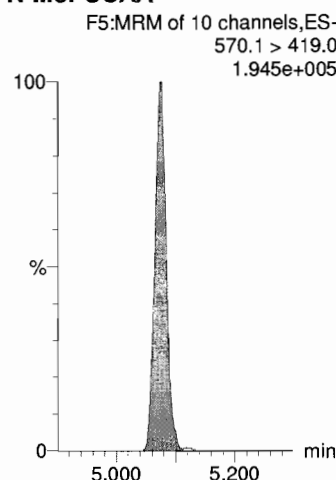
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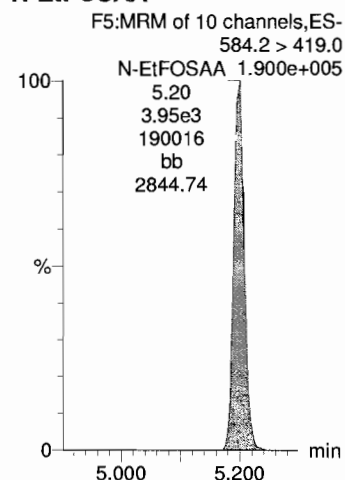
PFDA



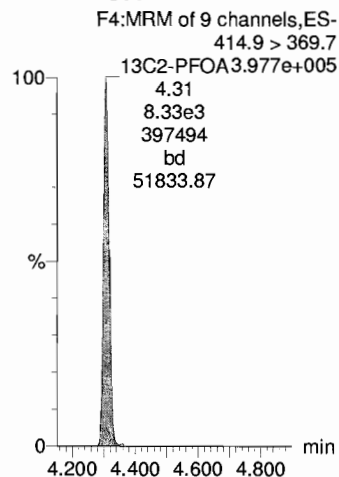
N-MeFOSAA



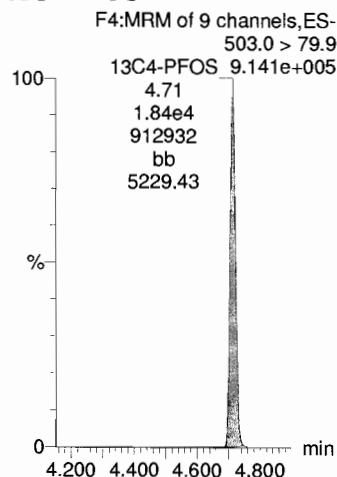
N-EtFOSAA



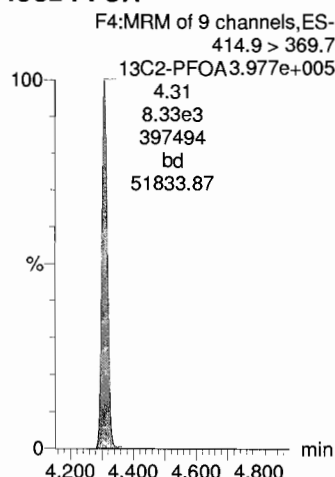
13C2-PFOA



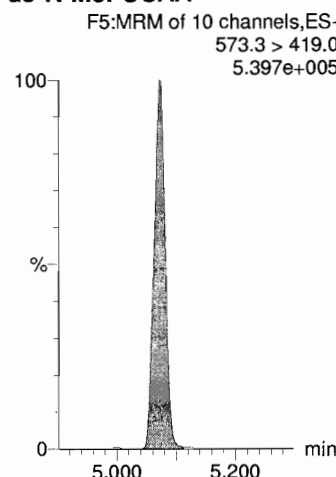
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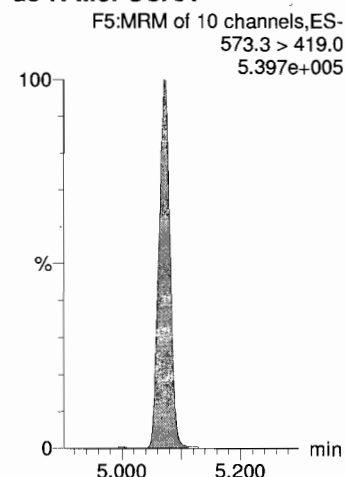
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d3-N-MeFOSAA



d3-N-MeFOSAA



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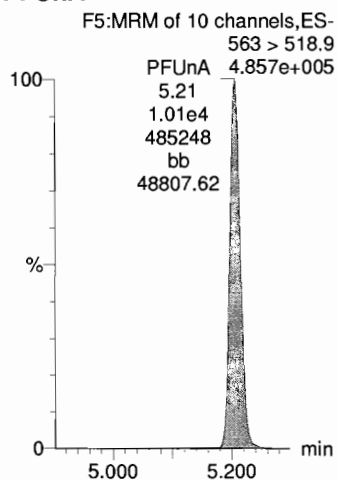
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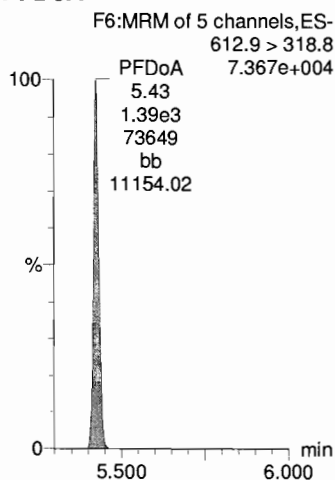
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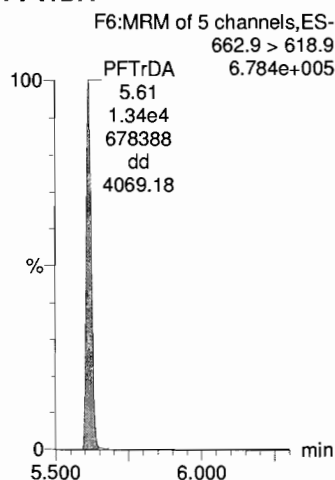
PFUnA



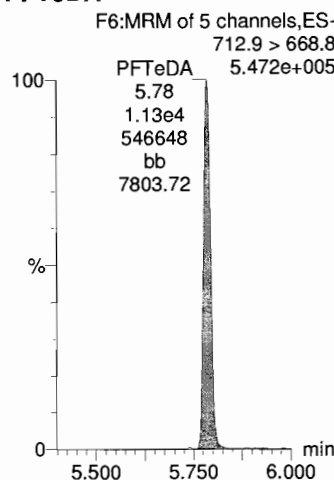
PFDaA



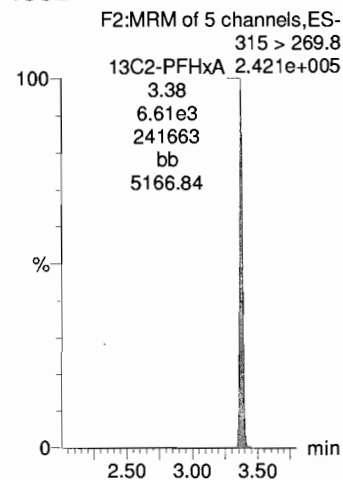
PFTTrDA



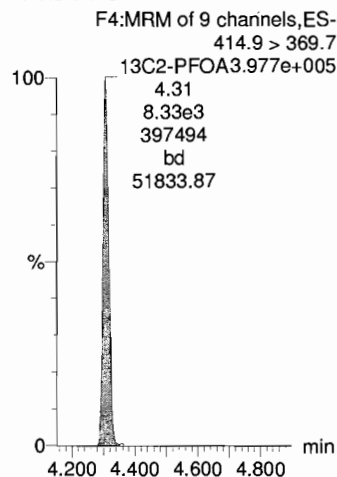
PFTeDA



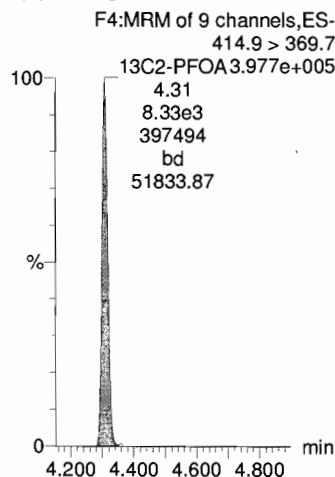
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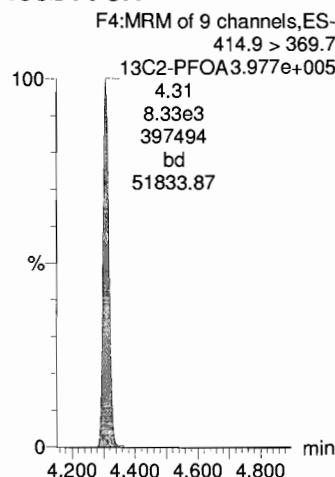
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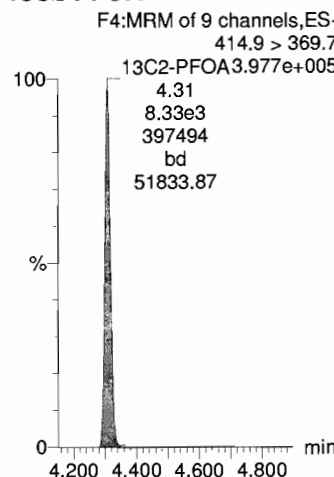
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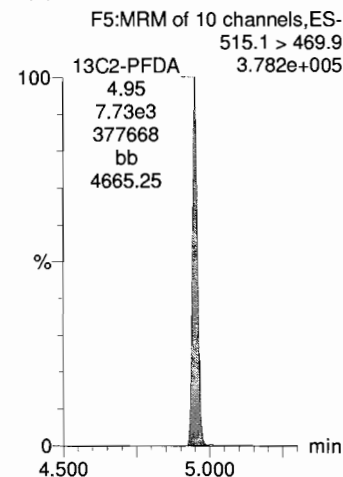
13C2-PFOA



13C2-PFOA



13C2-PFDA



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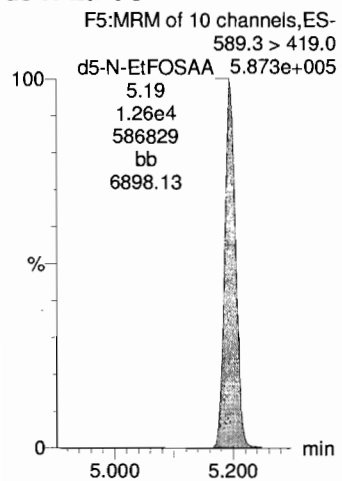
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Name: 180223G2_12, Date: 23-Feb-2018, Time: 15:34:05, ID: ICV180223G2-1 PFC ICV 537 18B2309, Description: PFC ICV 537 18B2309

d5-N-EtFOSAA



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[illegible]

[illegible]

Contract ID	DO CTD Number	Phase	Initiation ID	Sample Name	NCM Code	Analysis Group	Isolating Method	NC Code	Lab Code	Lab Name	Isolate Method	Sample Basis	Extraction Method	Result Type	Lab QC Type	Sample Medium	QC Level	Expiry/Time Collected	Date Received	Isolate Date	Isolate Time	Extraction Date	Extraction Time	Analysis Date	Analysis Time	Lab Sample ID	Dilution	Run Number	Percent Moisture	Percent Lipid	Chem Name	Isolate ID	Analysis Value	Original Analysis Value	Result Units	Lab Qualifier	Validator Qualifier	QC Column Type	Analysis Result Type	Result Narrative	QC Control Limit Code	QC Accuracy Upper	QC Accuracy Lower	Control Limit Date	QC Narrative	MDL	Detection Limit	OSM Version	DL	LOD	LOQ	DOC	Analysis Batch	Validator Name	Exp Date						
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180227	14:25:00	20180301	10:53:00	S80-75341-1	1	1			0-Fluorocubane	S80-53.7	100	100		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.19	0.40	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180227	14:25:00	20180301	10:53:00	S80-75341-2	1	1			1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.022	0.059	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180227	14:25:00	20180301	10:53:00	S80-75341-3	1	1			1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.030	0.099		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:17:00	S80-75341-2	1	1					0-Fluorocubane	S80-08.8	00	00		PCT REC	M	PS	SurR	SLA	141	80	00000000							5.0	1.2	2.0	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:17:00	S80-75341-2	1	1					Vinyl chloride	75-01-4	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.003	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:17:00	S80-75341-2	1	1					0-Fluorocubane	S80-53.7	100	100		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.19	0.40	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180227	14:25:00	20180301	10:53:00	S80-75341-1	1	1			2-Fluorocubane	S80-12.4	87	87		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.058	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.096		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.096		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.096		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					Vinyl chloride	75-01-4	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.059	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180227	14:25:00	20180301	10:53:00	S80-75341-1	1	1			2-Fluorocubane	S80-12.4	87	87		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.059	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.098		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					0-Fluorocubane	S80-08.8	00	00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	1.2	2.0	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.098		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					Vinyl chloride	75-01-4	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					0-Fluorocubane	S80-53.7	100	100		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.058	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.011	0.029	0.097		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					0-Fluorocubane	S80-08.8	00	00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	1.2	2.0	1.0		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					Vinyl chloride	75-01-4	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					0-Fluorocubane	S80-53.7	100	100		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					1,4-Dioxane	121.91-1	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					0-Fluorocubane	S80-08.8	00	00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-1	1	1					Vinyl chloride	75-01-4	0.00	0.00		PCT REC	M	PS	SurR	SLA	118	77	00000000							5.0	0.010	0.040	0.50		S80-75341-00-200101					
N624701020004041			WH010BEV-ISLAW-WA-AN6-T801-02	None	NSGA	IS20C-SM	SGA	FAMER	Test Annotat	None	NA	None	000	REG	M	WV	02/22/2018 11:50	02/27/2018					20180301	10:53:00	S80-75341-																																				

**DATA VALIDATION SUMMARY REPORT
NAS WHIDBEY ISLAND, WASHINGTON**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1800362
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NAS Whidbey Island, Area 6, CTO-4041, Washington
Date: May 12, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	WI-A06-RW17-0218	1800362-01	Water
2	WI-A06-RW17P-0218	1800362-02	Water
3	WI-A06-FB02-022018	1800362-03	Water

A full data validation was performed on the analytical data for two water samples and one aqueous field blank sample collected on February 20, 2018 by CH2M HILL at the NAS Whidbey Island Area 6 site in Washington. 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
PFCs

Method References
USEPA Method 537 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method 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
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination

- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

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

Data Usability Assessment

There were no rejections of data.

Overall the data are acceptable for the intended purposes. There were no qualifications.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

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

Holding Times

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

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC sample result are summarized in the table below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
WI-A06-FB02-022018	PFHxA	0.689	None	All ND

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

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

- MS/MSD samples were not analyzed.

Laboratory Control Samples

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

Internal Standard (IS) Area Performance

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

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

PFCs				
Compound	WI-A06-RW17-0218 ng/L	WI-A06-RW17P-0218 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
Nancy Weaver
Senior Chemist

Dated: 5/15/18

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.

Sample ID: WI-A06-RW17-0218										EPA Method 537					
Client Data				Laboratory Data											
Name:		CH2M Hill		Matrix:		Drinking Water		Lab Sample:		1800362-01		Column:		BEH C18	
Project:		NASWI Area 6		Date Collected:		20-Feb-18 13:40		Date Received:		23-Feb-18 09:35					
Location:		AREA 6													
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
PFBS	ND	0.398	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFHxA	ND	0.596	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFHpA	ND	0.479	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFHxS	ND	0.373	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFOA	ND	0.971	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFNA	ND	1.29	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFOS	ND	0.935	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFDA	ND	1.15	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
MeFOSAA	ND	2.73	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
EtFOSAA	ND	1.74	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFUnA	ND	0.229	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFDoA	ND	0.856	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFTrDA	ND	0.848	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
PFTeDA	ND	0.699	4.50	8.99		B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
Labeled Standards	Type	% Recovery	Limits	Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution					
13C2-PFHxA	SURR	96.9	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
13C2-PFDA	SURR	84.3	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					
d5-EtFOSAA	SURR	101	70 - 130			B8B0160	01-Mar-18	0.278 L	02-Mar-18 15:55	1					

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

LCCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

nw 5/12/18

Sample ID: W1-A06-RW17P-0218										EPA Method 537					
Client Data				Laboratory Data											
Name:		CH2M Hill		Matrix:		Drinking Water		Lab Sample:		1800362-02		Column:		BEH C18	
Project:		NASWI Area 6		Date Collected:		20-Feb-18 13:45		Date Received:		23-Feb-18 09:35					
Location:		AREA 6													
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
PFBS	ND	0.400	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFHxA	ND	0.598	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFHpA	ND	0.481	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFHxS	ND	0.374	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFOA	ND	0.974	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFNA	ND	1.30	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFOS	ND	0.938	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFDA	ND	1.15	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
MeFOSAA	ND	2.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
EtFOSAA	ND	1.74	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFUnA	ND	0.230	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFDoA	ND	0.859	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFTtDA	ND	0.851	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
PFTeDA	ND	0.701	4.51	9.02		B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
Labeled Standards	Type	% Recovery	Limits	Qualifiers		Batch	Extracted	Samp Size	Analyzed	Dilution					
13C2-PFHxA	SURR	88.1	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
13C2-PFDA	SURR	77.3	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					
d5-EtFOSAA	SURR	99.7	70 - 130			B8B0160	01-Mar-18	0.277 L	02-Mar-18 16:08	1					

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

new SL 2.1.18

Sample ID: W1-A06-FB02-022018

EPA Method 537

Client Data			Laboratory Data		
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800362-03
Project:	NASWI Area 6	Date Collected:	20-Feb-18 13:50	Date Received:	23-Feb-18 09:35
Location:	AREA 6			Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.415	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxA	0.689	0.621	4.68	9.37	J	B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHpA	ND	0.500	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFHxS	ND	0.389	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOA	ND	1.01	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFNA	ND	1.35	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFOS	ND	0.975	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDA	ND	1.20	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
MeFOSAA	ND	2.85	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
EtFOSAA	ND	1.81	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFUnA	ND	0.239	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFDoA	ND	0.892	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTTrDA	ND	0.884	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
PFTeDA	ND	0.728	4.68	9.37		B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	93.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
13C2-PFDA	SURR	86.2	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	1
d5-EtFOSAA	SURR	89.1	70 - 130			B8B0160	01-Mar-18	0.267 L	02-Mar-18 16:20	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.

sw sl_{1,2} 1.8

[illegible]